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The Botanic Garden;

Consisting of

Highly finished Representations

OF HARDY

ORNAMENTAL FLOWERING

PLANTS,

CULTIVATED IN GREAT BRITAIN;

WITH

Their Classification History, Culture,

AND

OTHER INTERESTING INFORMATION.

BY

B. MAUND, F.L.S.

Vol.

LONDON:
SIMPKIN AND MARSHALL, STATIONERS HALL COURT;
AND
SHERWOOD AND C.^o PATERNOSTER ROW.

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THE

BOTANIC GARDEN;

CONSISTING OF

HIGHLY FINISHED REPRESENTATIONS

OF HARDY

ORNAMENTAL FLOWERING PLANTS,

CULTIVATED

IN GREAT BRITAIN;

WITH

THEIR NAMES, CLASSES, ORDERS, HISTORY, QUALITIES, CULTURE,
AND PHYSIOLOGICAL OBSERVATIONS.

BY

B. MAUND, F. L. S.

VOL. XIII.

> "Not a tree,
> A plant, a leaf, a blossom, but contains
> A folio volume. We may read and read,
> And read again, and still find something new,
> Something to please and something to instruct."
> HURDIS.

London;
PUBLISHED BY GROOMBRIDGE AND SONS, PATERNOSTER ROW.

1850

1901, March 22.
Herbarium

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FAREWELL.

TWENTY-SIX years have passed away since the Botanic Garden first sought the favour of the public. That favour has been extensively awarded it; and the writer can but avail himself of the present opportunity, of gratefully acknowledging the many instances he has received of kind assistance, and distinguished marks of approbation.

The cultivation of flowers, a quarter of a century ago, was, comparatively, confined to the upper classes. This mark of superior civilization has, of late years, greatly extended through every grade of society. Ignorance hereof is becoming rare; and it must be evident to all, that as an acquaintance with the works of creation is extended, so the Omnipotence and Beneficence of the Creator become the more duly appreciated and venerated.

The early part of this work includes the greater portion of the most favourite plants of the open flower borders.

Their frequent occurrence makes it desirable that their history, and origin, should be known. The re-issue of the early numbers of this work will afford a convenient opportunity for those who possess only the latter part, to complete their sets. Others may begin with the beginning, and avail themselves of the economy which former years have enabled us to offer them.

It is not without regret that we, in some degree, dissever a tie between ourselves and numerous distant friends —a union, however slight, to which we owe much pleasure, without the occurrence of a single pang from the passing of a sentiment that we could wish obliterated.

We confess, to a desire, still to hold a place in the remembrance of garden lovers, and hope by a re-issue of the Botanic Garden, to perpetuate, a little longer, the connexions, to which time and feeling have given us so close an attachment.

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Erica cinerea,	Grey Heath,	5	434
Erica herbacea,	Early Dwarf Heath,	1	22
Erica mediterranea,	Mediterranean Heath,	1	74
Erica multiflora,	Many-flowered Heath,	4	376
Erica stricta,	Straight-branched Heath,	3	217
Erigeron asteroides,	Aster-like Erigeron,	5	453
Erinus alpinus,	Alpine Erinus,	1	11
Erodium hymenodes,	Ternate-leaved Heron's-Bill,	3	193
Erpetion reniformis,	Spurless Violet,	4	342
Eryngium alpinum,	Alpine Eryngo,	5	428
Eryngium Bourgati,	Bourgati's Eryngo,	5	396
Erythræa aggregati,	Aggregate Erythræa,	4	341
Erythronium Americanum,	Yel-flow. Dog's-tooth Violet,	2	178
Erythronium dens canis,	Common Dog's-tooth Violet,	2	181
Escallonia rubra,	Red-flowered Escallonia,	6	553
Eupatorium maculatum,	Spotted-stalked Eupatorium,	2	107

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Eschscholtzia Californica	Californian Eschscholtzia	4	298
Eutoca viscida	Clammy Eutoca	6	569
Fragaria Indica	Yel.-flowered Strawberry	1	7
Fritillaria meleagris	Chequered Fritillaria	2	183
Fuchsia macrostema	Globe-flowered Fuchsia	6	533
Fumaria Halleri	Haller's Fumatory	3	262
Fumaria lutea	Yellow-flowered Fumatory	2	111
Fumaria nobilis	Great-flowered Fumatory	1	69
Gailardia aristata	Awned Gailardia	5	402
Gailardia bicolor	Two-coloured Gailardia	2	100
Galega Persica	Persian Goat's Rue	5	455
Galinsogea trilobata	Three-lobed Galinsogea	4	370
Gaultheria procumbens	Trailing Gaultheria	1	17
Gaura biennis	Biennial Gaura	1	75
Gazania rigens	Rigid Gazania	5	415
Genista ephedroides	Ephedra-like Genista	6	498
Genista sagittalis	Jointed Genista	1	50
Gentiana acaulis	Gentianella	1	51
Gentiana asclepiadea	Swallow-wort-leav. Gentian	3	282
Gentiana Catesbæi	Catesby's Gentian	2	113
Gentiana cruciata	Crosswort, or crossed Gentian	5	387
Gentiana verna	Spring Gentian	2	179
Geranium anemonefolium	Anemone-leaved Crane's Bill	6	545
Geranium angulatum	Angular-stalked Crane's Bill	6	484
Geranium Ibericum	Iberian Crane's Bill	5	458
Geranium Lancastriense	Lancaster Crane's Bill	5	388
Geranium pratense, var.	Varig. Meadow Crane's Bill	6	492
Geum Chiloense	Chile Geum	3	273
Gilia capitata	Cluster-flowered Gilia	3	202
Gilia tricolor	Three-coloured Gilia	6	509
Gladiolus Natalensis	Natal Corn-flag	6	536
Glaucium phœniceum	Red-flowered Horn-Poppy	4	349
Globularia vulgaris	Common Globularia	1	9
Gnaphalium arenarium	Sand Everlasting	1	38
Gratiola aurea	Golden Hedge-Hyssop	4	374
Gypsophila prostrata	Trailing Gypsophila	2	150
Hedysarum obscurum	Creeping Hedysarum	5	441
Hedysarum roseum	Rose-coloured Hedysarum	4	346
Helianthemum Marifolium	Marum-leaved Sun Rose	6	574
Helianthemum roseum	Rose-coloured Sun Rose	3	267
Heliophila araboides	Arabis-like Heliophila	6	522
Helleborus niger	Christmas Rose	1	8
Helonius bullata	Spear-leaved Helonius	3	235
Hepatica trilobata	Three-lobed Hepatica	4	323
Hesperis matronalis, alba	Double White Rocket	1	39
Hesperis matronalis, pur.	Double Purple Rocket	1	70
Hibiscus Syriacus	Althæa Frutex	1	77
Horminum Pyrenaicum	Pyrenean Horminum	4	320

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Houstonia cærulea,	Blue-flowered Houstonia,	6	493
Hunnemania fumariæfolia,	Fumitory-leav. Hunnemania,	5	423
Hyacinthus orientalis,	Oriental Hyacinth,	4	367
Hyoscyamus niger,	Common Henbane,	2	172
Hypericum Kalmianum,	Kalmia-leav. St. John's wt.	3	194
Hypoxis erecta,	Upright Hypoxis,	4	302
Hyssopus Orientalis,	Oriental Hyssop,	5	466
Iberis sempervirens,	Narrow-leaved Candy-tuft,	1	82
Iberis Tenoreana,	Tenore's Candy-tuft,	6	556
Iris neglecta,	Horneman's Iris,	6	519
Iris pallida,	Pale Iris,	4	303
Iris pumila,	Dwarf Iris,	3	263
Iris Ruthenica,	Russian Iris,	5	456
Iris sambucina,	Elder-scented Iris,	5	443
Iris Sibirica,	Siberian Iris,	3	274
Iris Susiana,	Chalcedonian Iris,	1	30
Iris variegata,	Variegated Iris,	3	278
Iris versicolor,	Changeable Iris,	1	3
Iris Virginica,	Virginian Iris,	4	327
Isotoma axillaris,	Axillary-flowered Isotoma,	3	218
Jasione perennis,	Perennial Sheep's Scabious,	5	471
Jasminum revolutum,	Curled-flowered Jasmine,	1	12
Kalmia glauca,	Glaucous Kalmia,	1	43
Kalmia latifolia,	Broad-leaved Kalmia,	1	33
Kaulfussia amelloides,	Amellus-like Kaulfussia,	2	169
Lablab vulgaris,	Common Lablab,	5	404
Lachenalia tricolor,	Three-coloured Lachenalia,	1	21
Lathyrus Armitageanus,	Armitage's Lathyrus,	6	526
Lathyrus odoratus,	Sweet Pea,	4	369
Lathyrus rotundifolius,	Round-leaved Lathyrus,	6	511
Lathyrus tuberosus,	Tuberous Lathyrus,	2	139
Lavatera salvitellensis,	Pyramidal Lavatera,	6	505
Lavatera triloba,	Three-lobed Lavatera,	5	437
Ledum buxifolium,	Box-leaved Ledum,	1	52
Ledum latifolium,	Broad-leaved Ledum,	3	227
Ledum palustre,	Marsh Ledum,	1	47
Leptostelma maxima,	Great Leptostelma,	5	467
Leucocarpus alatus,	Wing-stalked Leucocarpus,	4	355
Leucojum æstivum,	Summer Snowflake,	2	186
Liatris scariosa,	Scaly-cupped Liatris,	2	161
Libertia formosa,	Beautiful Libertia,	5	472
Lilium bulbiferum,	Bulb-bearing Lily,	1	31
Lilium Canadense,	Canadian Lily,	2	112
Lilium Chalcedonicum,	Scarlet Martagon,	4	292
Lilium longiflorum,	Long-flowered Lily,	6	532
Lilium martagon,	Purple Martagon,	4	332
Lilium martagon,	White Martagon,	5	426
Lilium Pomponium,	Pompone Lily,	5	444

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Lilium tigrinum,	Tiger-spotted Lily,	1	53
Linaria alpina,	Alpine Toad-flax,	4	305
Linaria bipartita,	Two-parted Toad-flax,	3	272
Linaria cymbalaria,	Ivy-leaved Toad-flax,	4	300
Linaria Dalmatica,	Dalmatian Toad-flax,	6	570
Linaria Italica,	Italian Toad-flax,	5	463
Linaria purpurea,	Purple Flax-weed,	1	34
Linaria triornithophora,	Three-birds-bearing Td. Flax	5	440
Linum alpinum,	Alpine Flax,	1	14
Linum flavum,	Yellow Flax,	6	539
Linum monogynum,	One-styled Flax,	6	482
Lithospermum purpu. cerul.,	Purple and blue Gromwell,	5	413
Loasa acanthifolia,	Acanthus-leaved Loasa,	3	252
Lobelia bicolor,	Two-coloured Lobelia,	4	351
Lobelia fulgens,	Fulgent Lobelia,	1	73
Lobelia fulgens-cærulea,	Hybrid Lobelia,	6	535
Lobelia syphilitica,	Blue Lobelia,	1	61
Lobelia tupa,	Tupa Lobelia,	6	503
Lonicera Tartarica,	Tartarian Honeysuckle,	1	23
Lopezia coronata,	Coronet-flowered Lopezia,	3	220
Lophospermum erubescens,	Blushing Lophospermum,	5	401
Lotus Jacobæus,	St. James's Island Trefoil,	4	326
Lubinia atropurpurea,	Dark purple Lubinia,	5	461
Lupinus Mexicanus,	Mexican Lupine,	4	366
Lupinus mutabilis,	Changeable Lupine,	4	338
Lupinus ornatus,	Adorned Lupine,	5	438
Lupinus perennis,	Perennial Lupine,	4	310
Lupinus polyphyllus,	Many-leaved Lupine,	4	291
Lychnis Chalcedonica,	Double Scarlet Lychnis,	1	87
Lychnis coronata,	Chinese Lychnis,	2	148
Lychnis flos Jovis,	Umbellate Rose-Campion,	5	397
Lysimachia angustifolia,	Narrow-leaved Loose-strife,	2	104
Lysimachia dubia,	Doubtful Loose-strife,	6	564
Lythrum diffusum,	Diffuse Lythrum,	5	470
Lythrum virgatum,	Fine-branched Lythrum,	2	134
Macleaya cordata,	Heart-leaved Macleaya,	4	354
Madia elegans,	Elegant Madia,	5	429
Magnolia conspicua,	Yulan Magnolia,	3	236
Malcomia maritima,	Mediterranean Stock,	3	196
Malope trifida,	Trifid Malope,	3	281
Malva angustifolia,	Narrow-leaved Mallow,	6	517
Malva Mauritiana,	Mauritanian Mallow,	4	347
Malva Munroana,	Munro's Mallow,	5	473
Mathiola annua,	Ten-week Stock,	3	260
Maurandia Barclayiana,	Barclay's Maurandia,	4	337
Meconopsis Cambrica,	Welch Meconopsis,	5	479
Melissa grandiflora,	Great-flowered Balm,	2	146
Melittis melissophyllum,	Large-flowered Bastard Balm	4	372

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Melittis melissophyllum,	Melissa-leav. Bastard-Balm,	4	356
Menziesia globularis,	Globe-flowered Menziesia,	1	89
Menziesia polifolia,	Hoary-leaved Menziesia,	5	478
Mimulus luteus,	Yel.-flow. Monkey-flower,	2	116
Mimulus luteus, rivularis,	Spotted Yel. Monkey-flower,	4	308
Mimulus moschatus,	Musk Monkey-flower,	2	282
Mirabilis Jalapa,	Common Marvel of Peru,	1	16
Momordica elaterium,	Spirting Cucumber,	6	527
Monarda didyma,	Oswego Tea,	2	140
Monarda fistulosa,	Hollow-stalked Monarda,	6	571
Muscari comosum,	Tasselled Grape Hyacinth	3	250
Muscari comosum monstrosum,	Feathered Grape Hyacinth,	3	222
Narcissus angustifolius,	Narrow-leaved Narcissus,	5	407
Narcissus bicolor,	Two-coloured Narcissus,	4	368
Narcissus bulbocodium,	Hoop Petticoat,	6	548
Narcissus incomparabilis,	Peerless Narcissus,	6	514
Narcissus interjectus,	Great curled cup Narcissus,	5	412
Narcissus jonquilla,	Jonquil,	3	225
Narcissus tazzetta,	Polyanthus Narcissus,	3	244
Neja gracilis,	Slender Neja,	5	393
Nicotiana tabacum,	Virginian Tobacco,	2	160
Nierembergia intermedia,	Nar-leav. pur. Nierembergia,	5	477
Nierembergia phœnicia,	Purple Nierembergia,	5	416
Nolana paradoxa,	Violet-flowered Nolana,	3	207
Nuttallia papaver,	Poppy-flowered Nuttallia,	6	489
Œnothera densiflora,	Close-flowered Œnothera,	6	540
Œnothera Fraseri,	Fraser's Evening Primrose,	2	163
Œnothera Lindleyana,	Lindley's Tree Primrose,	3	201
Œnothera macrocarpa,	Large-fruited Œnothera,	1	41
Œnothera pumila,	Dwarf Œnothera,	1	35
Œnothera purpurea,	Purple-flowered Œnothera,	1	79
Œnothera roseo-alba,	Red and White Œnothera,	4	365
Œnothera serrulata,	Saw-leav. Evening Primrose,	4	330
Œnothera speciosa,	Showy Œnothera,	4	339
Œnothera viminea,	Twiggy Œnothera,	4	362
Ononis hircina,	Strong-scented Rest-harrow,	2	174
Ononis rotundifolia,	Round-leaved Rest-harrow,	3	269
Onosma Taurica,	Golden-flowered Onosma,	3	234
Ophiopogon spicatus,	Spiked Snake's-Beard,	6	491
Opuntia vulgaris,	Common Opuntia,	6	552
Orobus hirsutus,	Hairy Bitter Vetch,	6	487
Orobus niger,	Black Bitter Vetch,	3	284
Orobus vernus,	Spring Bitter Vetch,	1	28
Oxalis crenata,	Notch-petalled Wood Sorrel,	5	433
Pæonia edulis,	Rose-scented Eatable Pæony,	5	451
Pæonia edulis, Whitleji,	Eatable Pæony,	4	311
Pæonia moutan,	Poppy-flowered Tree Pæony,	3	241
Pancratium Illyricum,	Illyrian Pancratium,	2	159

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Pardanthus Chinensis,	Chinese Pardanthus,	6	481
Parnassia Caroliniana,	Carolina Parnassia,	6	550
Parnassia palustris,	Grass of Parnassus,	3	195
Passiflora cærulea,	Common Passion Flower,	1	4
Pentstemon atropurpureum	Dark Purple Pentstemon,	3	275
Pentstemon digitalis,	Foxglove-flow. Pentstemon,	3	258
Pentstemon ovatum,	Oval-leaved Pentstemon,	4	331
Pentstemon pubescens,	Hairy Pentstemon,	1	42
Pentstemon pulchellum,	Pretty Pentstemon,	4	335
Pentstemon Richardsonii,	Richardson's Pentstemon,	5	430
Pentstemon roseum,	Rose-coloured Pentstemon,	4	316
Pentstemon speciosum,	Showy Pentstemon,	4	373
Periploca Græca,	Grecian Periploca,	5	410
Petunia nyctaginiflora,	Large-flowered Petunia,	3	208
Phalangium liliago,	Grass-leaved Phalangium,	4	290
Phlomis herba-venti,	Wind Herb,	5	464
Phlomis tuberosa,	Tuberous Phlomis,	4	360
Phlox cetacea,	Fine-leaved Phlox,	1	68
Phlox crassifolia,	Thick-leaved Phlox,	4	319
Phlox divaricata,	Early blue-flowered Phlox,	2	182
Phlox nivalis,	Snow-white Phlox,	2	190
Phlox ovata,	Oval-leaved Phlox,	1	59
Phlox paniculata,	White-panicled Phlox,	4	350
Phlox pilosa,	Hairy-leaved Phlox,	4	309
Phlox reflexa,	Reflexed-leaved Phlox,	3	214
Phlox subulata,	Awl-leaved Phlox,	3	248
Phlox triflora,	Three-flowered Phlox,	1	6
Phlox Wheeleriana,	Wheeler's Phlox,	5	395
Phyteuma campanuloides,	Campanula-flow. Rampion,	2	158
Phyteuma orbiculare,	Round-headed Rampion,	2	154
Pinguicula grandiflora,	Large-Flowered Pinguicula,	6	560
Piptanthus Nepalensis,	Nepal Piptanthus,	5	418
Polygala Chamæbuxus,	Box-leaved Milkwort,	1	24
Polygonatum multiflorum,	Many-flow. Solomon's Seal,	3	255
Polygonum divaricatum,	Divaricated Polygonum,	2	106
Polygonum viviparum,	Viviparous Polygonum,	3	282
Pontederia cærulea,	Blue Pontederia,	6	551
Potentilla atrosangui-pedata,	Hybrid Potentilla,	5	385
Potentilla formosa,	Handsome Nepaul Cinquefoil,	2	157
Potentilla molissima,	Soft-leaved Cinquefoil,	6	542
Potentilla pedata,	Foot-leaved Cinquefoil,	4	379
Potentilla rupestris,	Rock Cinquefoil,	5	474
Potentilla Russelliana,	Russell's Hybrid Cinquefoil,	4	304
Potentilla splendens,	Splendid Cinquefoil,	3	221
Primula acaulis,	Double Primrose,	1	60
Primula auricula,	Auricula,	3	203
Primula auricula,	Auricula,	4	345
Primula cortusoides,	Cortusa-leaved Primrose,	2	156

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Primula farinosa,	Bird's-eye Primrose,	1	96
Primula minima,	Least Primrose	6	495
Primula Sinensis,	Chinese Primrose,	1	1
Primula villosa, flore albo,	White Villous Auricula,	3	231
Prunella grandiflora,	Great flowered Self-heal,	2	102
Prunella Sibirica,	Siberian Self-heal,	5	475
Pulmonaria paniculata,	Panicled Longwort,	2	131
Pulmonaria Virginica,	Virginian Longwort,	2	133
Pyrethrum inodorum,	Scentless Feverfew,	4	359
Pyrethrum roseum,	Rosy Feverfew,	4	380
Pyrethrum uliginosum,	Marsh Feverfew,	5	439
Pyrola minor,	Smaller Winter-green,	6	575
Pyrus Japonica,	Japan Apple-tree,	1	49
Ramonda Pyrenaica,	Borage-leaved Ramonda,	1	83
Ranunculus amplexicaulis,	Stem-clasping Ranunculus,	4	321
Ranunculus Asiaticus,	Garden Ranunculus,	3	271
Ranunculus millefoliatus,	Thousand-leaved Crowfoot,	5	476
Ranunculus platanifolius,	Plane-tree-leaved Crowfoot,	4	295
Rhexia Virginica,	Virginian Rhexia,	2	129
Rhodanthe Manglesii,	Capt. Mangles's Rhodanthe,	6	537
Rhodochiton volubile,	Twining Rodochiton,	6	525
Rhododendron Catawbiense,	Catawba Rhododendron,	5	408
Rhododendron ferrugineum,	Rusty-leaved Rhododendron,	4	325
Rhododendron hirsutum,	Hairy-leaved Rhododendron,	1	63
Rhododendron maximum,	Large Rhododendron,	3	276
Ribes aureum,	Golden-flowered Currant,	2	189
Ribes sanguineum,	Crimson-flowered Currant,	4	377
Rosa alba,	Celestial Rose,	6	561
Rosa Banksiæ, lutea,	Lady Banks's Yellow Rose,	3	197
Rosa centifolia,	Variegated Provins Rose,	5	465
Rosa centifolia, var. Dianth.	Oeillet, or Pink-flow. Rose,	3	249
Rosa Indica,	China Rose,	2	185
Rosa Indica,	Rose Clare,	5	445
Rosa rapa,	Double Burnet-leaved Rose,	5	406
Rosa semperflorens,	Crimson Chinese Rose,	2	177
Rubus arcticus,	Dwarf Bramble,	2	152
Rubus spectabilis,	Showy Bramble,	6	568
Rudbeckia columnaris,	Columnar Rudbeckia,	4	336
Rudbeckia fulgida,	Fulgid Rudbeckia,	2	101
Rudbeckia hirta,	Hairy Rudbeckia,	4	314
Rudbeckia pinnata,	Pinnate Rudbeckia,	5	457
Sagittaria latifolia,	Broad-leaved Arrowhead,	6	546
Salpiglossis straminea,	Straw-coloured Salpiglossis,	4	333
Salvia grandiflora,	Great-flowered Sage,	5	420
Sanguinaria Canadensis,	Bloodwort,	3	242
Sanguisorba Canadensis,	Canadian Great Burnet,	5	442
Saponaria Calabrica,	Calabrian Soapwort,	6	510
Saponaria ocymoides,	Basil-leaved Soapwort,	2	651

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Saxifraga aizoon,	Marginated Saxifrage,	4	419
Saxifraga ceratophylla,	Shining-calyxed Saxifrage,	3	268
Saxifraga granulata, fl. pleno,	Dbl. grain-root Saxifrage,	3	264
Saxifraga oppositifolia,	Opposite-leaved Saxifrage,	2	127
Saxifraga rotundifolia,	Round-leaved Saxifrage,	3	270
Scabiosa atropurpurea,	Sweet Scabious,	2	119
Schizanthus porrigens,	Spreading Schizanthus	2	126
Schizanthus retusus,	Retuse-petalled Schizanthus,	6	521
Scilla bifolia,	Two-leaved Squill,	2	125
Scilla bifolia alba,	White two-leaved Squill,	2	176
Scilla Sibirica,	Siberian Squill,	2	192
Scutellaria alpina,	Alpine Scullcap,	5	398
Scutellaria columnæ,	Heart-leaved Scullcap,	2	141
Scutellaria lupulina,	Two-coloured wolf Scullcap	6	555
Scutellaria peregrina,	Foreign Scullcap,	6	486
Sedum aizoon,	Yellow Stonecrop,	4	348
Sedum Ewersii,	Ewer's Stonecrop,	6	513
Sedum oppositifolium,	Opposite-leaved Stonecrop,	5	460
Senecio elegans,	Purple Grounsel,	1	40
Sida malvæflora,	Mallow-flowered Sida,	3	237
Silene acaulis,	Stemless Catchfly,	3	232
Silene fimbriata,	Fringe-flowered Catchfly,	2	128
Silene laciniata,	Jagged-petalled Catchfly,	6	499
Silene maritima,	Sea Catchfly,	4	324
Sisyrinchium Bermudianum,	Bermuda Sisyrinchium,	4	381
Sisyrinchium Bermudianum,	Large Bermuda Sisyrinchium,	6	497
Sisyrinchium grandiflorum,	Large-flowered Sisyrinchium,	6	573
Sisyrinchium striatum,	Streaked Sisyrinchium,	1	66
Solanum dulcamara,	Woody Nightshade,	2	109
Solanum runcinatum,	Runcinate-leav. Nightshade,	6	520
Soldanella alpina,	Alpine Soldanella,	4	317
Sollya heterophylla,	Various-leaved Sollya,	6	530
Spigelia Marilandica,	Indian Pink,	1	93
Spiræa bella,	Pretty Spiræa,	5	409
Spiræa lævigata,	Smooth Spiræa,	1	32
Spiræa trifoliata,	Three-leaved Spiræa,	2	153
Statice oleæfolia,	Olive-leaved Sea Lavender,	1	86
Statice sinuata,	Sinuous Sea Lavender,	6	500
Stenactis speciosa,	Showy Stenactis,	6	547
Stevia purpurea,	Purple Stevia,	2	180
Symphoria, racemosa,	Snowberry,	2	117
Symphytum Bohemicum,	Red-flowered Comfrey,	1	71
Tagetes lucida,	Lucid Tagetes,	3	215
Tagetes patula,	French Marigold,	1	56
Tetragonolobus purpureus,	Deep-red Tetragonolobus,	4	375
Tetragonolobus siliquosus,	Square-podded Winged Pea,	5	414
Teucrium fruticans,	Shrubby Germander,	6	554
Teucrium Pyrenaicum,	Pyrenean Teucrium,	1	80

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Thermopsis fabacea,	Fabia-like Thermopsis,	5	469
Thymus lanuginosus,	Woolly Thyme,	2	184
Tiarella cordifolia,	Heart-leaved Tiarella,	3	216
Tigridia Pavonia,	Tiger Flower,	1	5
Tolpis barbata,	Yellow Hawkweed,	3	259
Tournefortia, heliotropioides,	Heliotrope-like Tournefortia,	6	483
Trachymene cærulea,	Blue-flowered Trachymene,	5	450
Tradescantia congesta,	Close-flowered Spider-wort,	4	363
Trientalis Europæa,	European Winter-green,	6	544
Trillium grandiflorum,	Large-flowered Trillium,	1	26
Tritoma media,	Lesser Tritoma,	3	204
Trollius Europæus,	European Globe-flower,	3	209
Tropæolum majus,	Greater Nasturtium,	5	427
Tulipa Gesneriana,	Common Tulip,	3	245
Tulipa suaveolens,	Sweet-scented Tulip,	2	175
Tulipa sylvestris,	Wild Tulip,	6	488
Tussilago fragrans,	Sweet-scented Coltsfoot,	1	19
Uvularia grandiflora,	Large-flowered Uvularia,	2	187
Uvularia puberula,	Downy Uvularia,	6	512
Vaccinium amœnum,	Broad-leaved Wortleberry,	3	211
Valeriana montana,	Mountain Valerian,	1	36
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Verbena Aubletia,	Rose-flowered Vervain,	3	205
Verbena chamædrifolia,	Germander-leaved Vervain,	4	293
Verbena pulchella,	Pretty Verbena,	3	277
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Aconitum ovatum,	Oval-leaved Aconite,	10	870
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Alstrœmeria ligtu,	Striped-flowered Alstrœm.	8	765
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Astragalus virgatus,	Twiggy Milk Vetch,	9	775
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Epimedium Musschianum	Mussch's Barren-wort	12	1122
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Iris Chinensis,	Chinese Iris,	7	669
Iris flavissima,	Yellowest Iris,	10	906
Iris graminea,	Grass-leaved Iris,	13	1244
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Iris pumila,	Variegated Dwarf Iris,	7	614
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Lactuca sonchifolia,	Sowthistle-leaved Lettuce	10	938
Larochea falcata,	Sickle-leaved Larochea,	13	1216
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Lilium concolor,	Self-coloured Lily,	7	617
Lilium eximium,	Splendid Lily,	8	733
Lilium speciosum,	Spotted-flowered Lily,	11	961
Lilium superbum,	Superb Lily,	7	637
Lilium tenuifolium,	Fine-leaved Lily,	11	971
Linaria alba,	White-flowered Toad-flax,	10	898
Linaria alpina, versicolor,	Var.-col. Alpine Toad-flax	11	1046
Linaria pilosa,	Hairy-leaved Toad-flax,	11	992
Linaria silenifolia,	Silene-leaved Toad-flax,	9	858
Linnæa borealis,	Northern Linnea,	9	824
Liriodendron tulipifera,	Tulip Tree,	9	812
Lithospermum orientalis,	Oriental Gromwell,	13	1182
Loasa nitida,	Shining Loasa,	8	702
Loasa Pentlandica,	Pentland Loasa,	9	817
Lobelia cœlestis,	Heavenly Lobelia,	9	828
Lobelia erinus,	Ascending Lobelia,	11	1054
Lobelia ramosa,	Branching Lobelia,	11	1025
Lobelia urens,	Acrid Lobelia,	11	988
Lonicera Chinensis,	Chinese Honeysuckle,	10	916
Lonicera oblongifolia,	Oblong-lvd. Honeysuckle,	10	894
Lonicera sempervirens,	Trumpet Honeysuckle,	10	928
Lotus minima,	Least Bird's-foot Trefoil,	12	1152
Lupinus Hartwegii,	Mr. Hartweg's Lupine,	8	722
Lupinus macrophyllus,	Large-leaved Lupine,	8	674
Lupinus nanus,	Dwarf Lupine	7	578
Lupinus ornatus, maximus,	Largest Ornamental Lup.	12	1104
Lupinus tomentosus,	Woolly Lupine,	7	648
Lupinus versicolor,	Party-coloured Lupine,	7	615
Lychnis alpina,	Alpine Lychnis,	12	1096
Lychnis Bungeana,	Bunge's Lychnis,	13	1177
Lycium Afrum,	African Box-thorn,	11	984
Lycium Afrum, spinosum,	Spiny African Box-thorn,	12	1074
Lysimachia ephemerum,	Willow-leaved Loose-strife	11	982
Lysimachia ephem. major,	Large Ephem. Loose-strife	11	1018
Lysimachia hybrida,	Hybrid Loose-strife,	7	616
Lysimachia stricta,	Straight-branch. Loose-st.	8	758
Magnolia cordata,	Heart-leaved Magnolia,	11	987
Magnolia purpurea,	Purple Magnolia,	12	1085
Magnolia Soulangiana,	Soulange's Magnolia,	10	913
Malachodendron ovatum,	Ovate Malachodendron,	11	1015
Malva Creeana,	Cree's Mallow,	8	747
Malva lateritia,	Pale red-flowered Mallow,	9	787
Marrubium affine,	Kindred Horehound,	11	1048

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Melissa nepeta,	Field Balm,	7	662
Menziesia cœrulea,	Blue Menziesia,	8	681
Menziesia empetriformis,	Empetron-formed Menz.,	8	760
Menziesia polifolia,	Polium-leaved Menziesia,	8	732
Mesembryanthemum coc.	Scarlet flow. Fig Marigold,	11	964
Mesembryanthemum incla.	Never-closing Fig Marig.,	11	981
Mesembryanthemum pom.,	Afternoon Fig Marigold,	8	715
Mesembryanthemum stel.,	Starry-bearded Fig Mari.,	11	996
Mesembryanthemum trico.,	Three-coloured Fig Mari.,	10	912
Mespilus grandiflora,	Large-flowered Medlar,	11	1047
Mimulus roseo-cardinalis,	Scotch Hybrid Mimulus	9	813
Monarda Russelliana,	Russell's Monarda,	9	794
Morina longifolia,	Long-leaved Morina,	11	985
Myosotis azoricus,	Azores Forget-me-not,	13	1195
Myrica gale,	Sweet Gale,	12	1146
Narcissus capax,	Capacious Narcissus,	12	1073
Narcissus minor,	Small Narcissus,	8	706
Narcissus montanus,	Mountain Narcissus,	8	744
Nemesia chamædrifolia,	Germander-leaved Nemesia,	8	698
Nemophila atomaria,	Speckled Nemophila,	8	745
Nemophila aurita,	Ear-leaved Nemophila,	7	666
Nemophila insignis,	Showy Nemophila,	7	635
Nemophila maculata,	Spotted Nemophila,	13	1224
Nemophila phaceloides,	Phacelia-like Nemophila,	7	586
Neottia cernua,	Drooping-flowered Neottia,	9	782
Nerine curvifolia,	Curve-leaved Nerine,	13	1205
Nicotiana cerinthoides,	Honeywort-like Tobacco,	12	1082
Nolana atriplicifolia,	Spinach-leaved Nolana	8	692
Nonea flavescens,	Yellowish-flowered Nonea,	8	678
Nordmannia cordifolia,	Heart-leaved Nordmannia,	12	1130
Nymphæa pygmæa	Pygmy Water-lily,	7	643
Œnothera dentata,	Toothed Œnothera,	7	670
Œnothera humifusa,	Trailing Œnothera,	11	1005
Œnothera rosea,	Rosy-flowered Œnothera,	11	1050
Œnothera rubicunda,	Ruddy Œnothera,	8	756
Œnothera serotina,	Large-flowering Œnothera,	11	1027
Œnothera viminea,	Toothed twiggy Œnothera,	7	581
Onobrychis sativa,	Common Saintfoin,	11	1017
Ononis natrix,	Goat-root Rest-harrow,	10	926
Onosma setosum,	Bristly Onosma,	8	751
Ophrys apifera,	Bee-bearing Ophrys,	10	918
Orchis foliosa,	Leafy-spiked Orchis,	9	788
Orchis latifolia,	Broad-leaved Orchis,	10	951
Origanum dictamnus,	Dittany of Crete,	12	1125
Ornithogalum exscapum,	Stemless Star Bethlehem,	8	732
Ornithogalum refractum,	Refracted Star Bethlehem,	9	854
Orobus canescens,	Canescent Bitter Vetch.	7	646
Orobus Gmelini,	Gmelin's Bitter Vetch,	10	897

Systematic Name.	*English Name.*	*Vol.*	*No.*
Orobus pisiformis,	Pea-formed Bitter Vetch,	7	634
Orobus prostratus,	Prostrate Bitter Vetch,	11	983
Oxalis articulata,	Joint-rooted Wood-sorrel,	11	1013
Oxalis caprina,	Goat's-foot Wood-sorrel,	9	849
Oxalis floribunda,	Many-flowered Wood-sor.,	11	1053
Oxalis Piottæ,	Piotta's Wood-sorrel,	10	895
Oxalis rosea,	Rosy Wood-sorrel,	13	1204
Oxalis tetraphylla,	Four-leaved Wood-sorrel,	8	735
Oxytropis campestris,	Field Oxytropis,	9	859
Oxytropis Uralensis	Uralian Oxytropis,	7	620
Pæonia edulis,	Eatable-rooted Pæony,	9	831
Pæonia edulis,	Eat.-rooted Pæony, rose,	9	843
Pæonia edulis festiva	Handsome Edible Pæony,	10	905
Pæonia edulis, Reevesii,	Eatable Pæony, Reeves's,	12	1111
Pæonia lobata	Lobed Pæony,	7	621
Pæonia moutan,	Poppy-fld. Moutan Pæony,	12	1097
Pæonia Russi,	Russ's Pæony,	7	627
Pæonia tenuifolia,	Fine-leaved Pæony,	8	696
Papaver amœnum,	Pleasing Poppy,	13	1153
Papaver commutatum,	Changeable Poppy,	9	776
Parnassia asarifolia,	Asarum-leaved Parnassia,	8	724
Pavia rubra,	Red-flowered Pavia,	13	1218
Pelargonium lucia-rosea,	Bri. Rose-col. Stork's Bill,	13	1165
Pelargonium quercifolium,	Red Oak-lea. Stork's Bill,	13	1189
Pelargonium tricolor,	Three-col. Stork's Bill,	13	1156
Pelargonium,	Willmore's Pelargonium,	13	1241
Pentstemon argutum,	Sharp-edged Pentstemon,	8	699
Pentstemon barbatum,	Bearded Pentstemon,	9	777
Pentstemon cobœa	Cobœa-flowered Pentstem.	10	866
Pentstemon crassifolius,	Thick-leaved Pentstemon,	12	1071
Pentstemon diffusum,	Diffuse Pentstemon,	13	1207
Pentstemon gentianoides.	Gentian-like Pentstemon,	8	701
Pentstemon gracilis,	Slender Pentstemon,	7	590
Pentstemon latifolius,	Broad-leaved Pentstemon,	10	882
Pentstemon Mackayanus,	Mackay's Pentstemon,	8	738
Pentstemon Murrayanus,	Murray's scarlet Pentstem.,	8	757
Pernettia angustifolia,	Narrow-leaved Pernettia,	8	768
Pernettia piloso,	Pilose Pernettia,	9	819
Petromarula pinnata,	Wing-leaved Rock herb,	11	1038
Pettunia Phœnicea,	Purple flowered Petunia,	12	1057
Phacelea congesta	Tufted-flowered Phacelia,	7	632
Philadelphus Gordonianus,	Gordon's Syringa,	8	754
Philadelphus laxus,	Loose-growing Philadelp.,	12	1091
Phlomis lunarifolia,	Honesty-leaved Phlomis,	7	623
Phlox Clarkioides,	Clarkia-like Phlox,	11	1011
Phlox pyramidalis,	Pyramidal Phlox,	10	904
Phlox speciosissima,	Showy Phlox,	10	876
Phlox suaveolens,	Hybrid Sweet-Snt. Phlox,	11	965

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Phyteuma Halleri,	Haller's Rampion,	8	680
Phyteuma pulchellum,	Pretty Phyteuma,	8	728
Pinus laricio,	Corsican Pine,	11	969
Pinus Pallasiana,	Pallas's Pine,	11	976
Pinus Pinea,	Stone Pine,	10	940
Pinus resinosa,	The Red Pine,	10	932
Platystemon Californicus,	Californian Platystemon,	7	582
Polemonium cæruleum,	Large Bl. Greek Valerian,	11	1001
Polemonium humile,	Humble Polemonium,	8	709
Polygala paucifolia,	Few-leaved Milkwort,	9	803
Potentilla floribunda,	Bundle-flower. Cinquefoil,	12	1067
Potentilla formosa,	Miss Garnier's Cinquefoil,	10	934
Potentilla hæmatochrus,	Blood-coloured Potentilla,	8	726
Potentilla Macnabiana,	Macnab's Cinquefoil,	13	1212
Potentilla Tormentillo-for.,	Tongue's hybrid Potentilla	7	585
Primula acaulis,	Double Yellow Primrose,	13	1196
Primula amœna,	Pleasing Purple Primrose,	9	850
Primula Carniolica,	Carniolian Primrose,	7	651
Primula ciliata,	Ciliated Swiss Primrose,	10	907
Primula denticulata,	Toothed-leaved Primula,	9	847
Primula integrifolia,	Entire-leaved Primula,	13	1192
Primula longifolia,	Long-leaved Primrose,	7	612
Primula longiflora,	Long-flowered Primrose,	9	784
Primula marginata,	Silver-edged Primrose,	8	707
Primula Mistassinica,	Lake Mistassins Primrose,	8	743
Primula veris,	Cowslip, var.,	11	1009
Primula verticillata,	Whorled Primula,	9	855
Prunella Webbiana,	Webb's Self-heal,	12	1118
Prunus spinosa, pleno,	The Sloe Thorn,	12	1134
Psoralea glandulosa,	Glandulous Psoralea,	9	842
Pulmonaria maritima,	Sea Lungwort,	9	823
Puschkinia scilloides,	Scilla-like Puschkinia,	7	611
Pyrola rotundifolia,	Round-leaved Wintergreen,	7	592
Pyrola uniflora,	Single-flow. Wintergreen,	10	960
Pyrus prunifolia,	Plum-leav. Siberian Crab,	12	1129
Pyrus spectabilis,	Showy Chinese Apple,	13	1209
Ranunculus Asiaticus,	Ranunculus, Seedling,	9	805
Ranunculus Asiaticus,	Ranunculus, Seedling,	13	1197
Ranunculus Asiaticus,	Ranunculus, Seedling,	13	1211
Ranunculus Asiaticus,	Ranunculus, Director,	13	1229
Raphiolepis Indica,	Indian Hawthorn,	9	802
Rehmannia Chinensis,	Chinese Rehmannia	10	873
Rhododendron arboreum,	Tree Rhododendron,	11	967
Rhododendron campanula,	Campanulate Rhododend.,	10	899
Rhododendron Caucasicum	Caucasian Rhododendron,	10	947
Rhodo. Caucasicum-Pont.	Hybrid Caucasian Rhodo.,	10	903
Rhododendron Dauricum,	Daurian Rhododendron,	9	798
Rhododendron Jackmanii,	Jackman's Rhododendron,	13	1245

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Rhododendron hybridum,	Herbert's Hybrid Rhodo.,	10	941
Rhododen. enneandrium,	Hybrid Rhododendron,	10	931
Rhododendron fragrans,	Fragrant Rhododendron,	11	1023
Rhododen. Glennyanum,	Glenny's Rhododendron,	12	1084
Rhododendron myrtifolium	Myrtle-leaved Rhododen.,	9	769
Rhodora Canadense,	Canadian Rhodora	8	742
Ribes atrosanguineum-aur.,	Gorden's currant,	11	1051
Ribes fragrans,	Fragrant Currant,	9	797
Ribes glutinosum,	Glutinous Currant,	7	597
Ribes laucustre,	Lake-side Currant,	10	954
Ribes Menziesii,	Menzie's Gooseberry,	10	944
Ribes multiflorum,	Many-flowered Currant,	11	1035
Robinia hispida,	Hispid Rose-Acacia,	10	917
Rosa Bourboniana,	Queen of Bourbons,	10	887
Rosa centifolia,	Mossy Rose de Meaux,	11	1041
Rosa Hardii,	Hardy's Rose,	10	869
Rosa Gallica,	French Rose,	10	925
Rosa Gallica,	Three-col. French Rose,	11	997
Rosa Indica,	Jaun Desprez, Yel. Noisette,	8	729
Rosa Indica,	China Rose, Ophiree,	12	1121
Rosa Indica,	Rose, Geant des Batailles,	13	1233
Rosa lutea,	Williams's double yel. Rose,	7	661
Rosa lutea,	Yellow Persian Rose,	13	1193
Rosa microphylla,	Small-leaved Rose,	9	825
Rosa rubiginosa,	Scarlet Briar,	10	877
Rosa spinosissima,	Spiniest Scotch Rose,	11	989
Roscoea purpurea,	Purple Roscoea,	9	861
Rubus fruticosus,	Double red-flow. Bramble,	7	577
Rudbeckia asperrima,	Rough Rudbeckia,	7	647
Rudbeckia columnaris,	Painted-rayed Rudbeckia,	7	657
Ruscus aculeatus,	Prickly Butcher's Broom,	13	1200
Salvia confusa,	Confused Sage,	10	878
Salvia Grahami,	Graham's Sage,	11	973
Salvia hians,	Gaping Sage,	11	998
Salvia patula,	Spreading Sage,	8	714
Salvia prunelloides,	Prunella-like Sage,	12	1106
Salvia rugosa,	Wrinkle-leaved Sage,	13	1194
Salvia Tenorii,	Tenore's Sage,	9	848
Salvia vulnerariæfolia,	Vulneraria-leaved Sage,	10	880
Saxifraga ciliata,	Fringed Saxifrage,	11	1040
Saxifraga geranioides,	Crane's-bill-like Saxifrage,	11	1000
Saxifraga Maderensis,	Madeira Saxifrage,	9	838
Saxifraga oppositifolia,	Opposite-leaved Saxifragc	12	1120
Scabiosa Webbiana,	Webb's Scabious,	9	796
Scævola microcarpa,	Small-fruited Scævola,	12	1114
Schelhammera multiflora,	Many-flo. Schelhammera,	13	1190
Schizanthus Priestii,	Priest's Schizanthus,	13	1214
Schizopetalon Walkeri,	Walker's Schizopctalon,	7	618

Systematic Name.	*English Name.*	*Vol.*	*No.*
Scilla amœna,	Pleasing Blue Squill,	13	1232
Scilla bifolia,	Two-leaved Squill,	8	723
Scilla campanulata,	Campanulate Squill,	7	652
Scilla Italica,	Italian Squill,	13	1226
Scilla Peruviana,	Peruvian Squill,	11	972
Scilla præcox,	Early-flowered Squill,	7	583
Scutellaria elegans,	Elegant Scullcap,	12	1079
Scutellaria Japonica,	Japan Scullcap,	9	778
Scutellaria macrantha,	Long-flowered Scullcap,	7	638
Scutellaria pallida,	Pale Scullcap,	11	980
Scyphanthus elegans,	Elegant Cup flower,	8	746
Sedum album,	White Stonecrop,	11	1006
Sedum cœruleum,	Purple Stonecrop,	9	774
Sedum Kamtschatkia,	Kamtschatkia Stonecrop,	13	1155
Sedum spurium,	Spurious Stonecrop,	7	601
Sedum telephium,	Common Orpine Stonecr.,	10	948
Senecio lilacinus,	Lilac-flowered Groundsel,	13	1164
Silene chloræfolia,	Chlora-leaved Catchfly,	10	942
Silene pendula,	Pendulous Catchfly,	13	1215
Silene regia,	Splendid Catchfly,	7	609
Silene saxifraga,	Saxifrage Catchfly,	12	1142
Silene Schafta,	Schafta Catchfly,	12	1100
Silene speciosa,	Showy Catchfly,	12	1140
Sisyrinchium Californicum,	Californian Sisyrinchium,	7	579
Sisyrinchium graminifoli.,	Dwarf Sisyrinchium,	10	865
Sisyrinchium junceum,	Rush-like Sisyrinchium,	13	1180
Solanum etuberosum,	Tuberless Solanum,	7	625
Solanum jasminoides,	Jasmine-lea. Bitter-sweet,	13	1178
Soldanella minima,	Least Soldanella,	7	602
Sphenogyne anthemoides,	Anthemis-like Sphenog.,	13	1221
Sphenogyne speciosa,	Showy Sphenogyne,	7	626
Spiræa ariæfolia,	Beam-tree-leaved Spiræa,	13	1210
Spiræa barbata,	Bearded Spiræa,	7	640
Spiræa Douglassi,	Douglas's Spiræa,	11	1045
Spiræa lanceolata,	Spear-leaved Spiræa,	11	975
Spiræa prunifolia, pleno,	Double-flo. Japan Spiræa,	12	1138
Spiræa venusta,	Beautiful Spiræa,	10	867
Stachys Corsica,	Corsican Stachys,	8	676
Stachys speciosa,	Handsome Hedge Nettle,	9	809
Statice Fortuni,	Fortune's Sea Lavender,	12	1076
Statice latifolia,	Broad-leav. Sea Lavender,	7	599
Symphiandra pendula,	Pendulous Symphiandra,	12	1103
Symphytum asperrimum,	Roughest Comfrey,	12	1119
Tagetes corymbosa,	Corymbose Tagetes,	10	875
Tetranema Mexicanum,	Mexican Tetranema,	11	1007
Teucrium canum,	Hoary Germander,	9	832
Teucrium Hyrcanicum,	Hyrcanian Germander,	7	608
Thalictrum tuberosum,	Tuberous-rooted Mead. Rue	7	598

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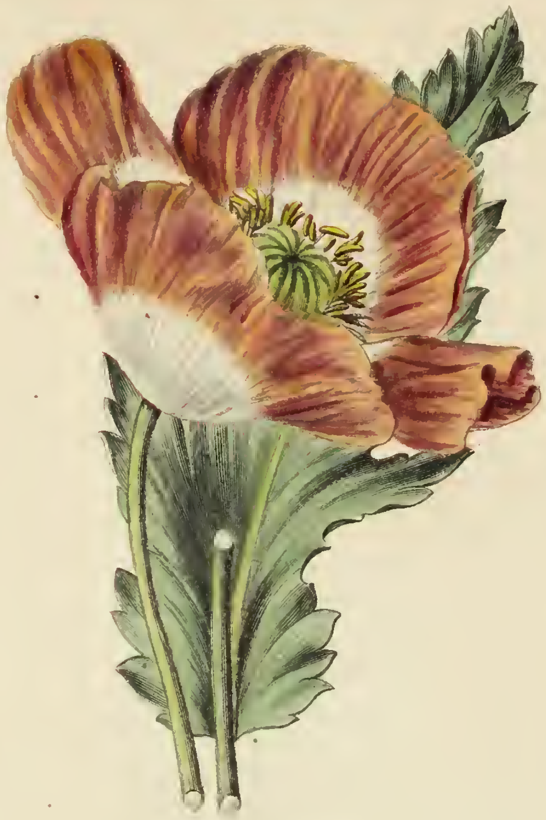
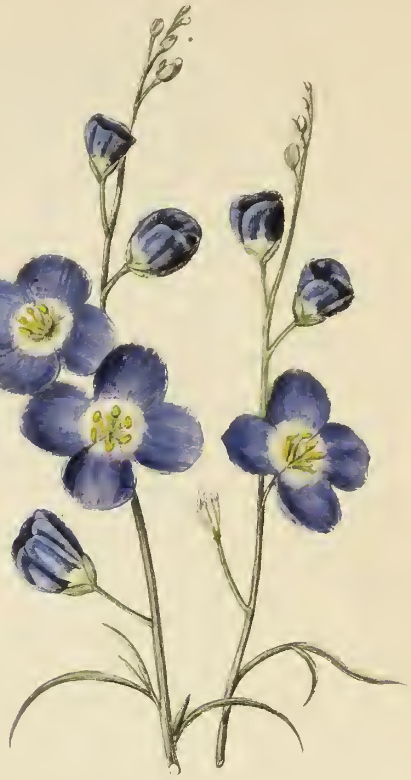
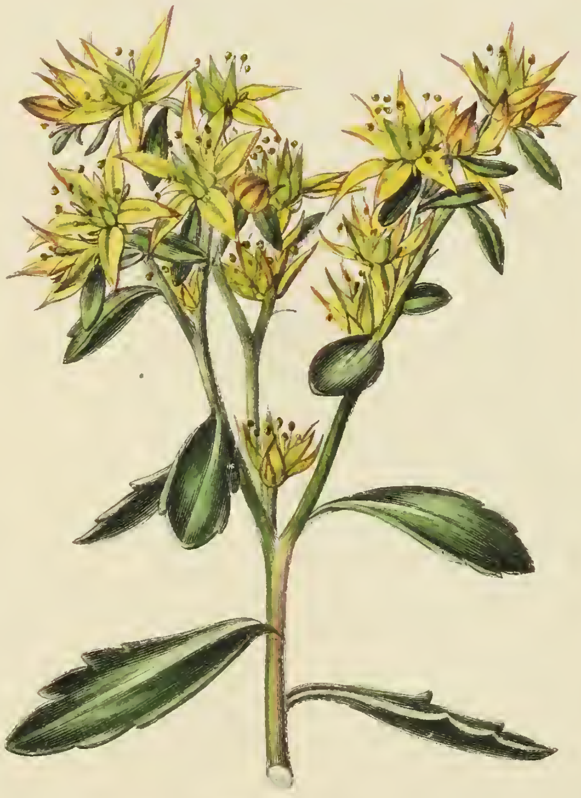
Thymus azureus,	Azure Thyme,	7	604
Tigridia conchiflora,	Shell-flowered Tiger-flower,	9	793
Torenia scabra,	Rough-leaved Torenia,	11	1014
Tradescantia spicata,	Spiked Spiderwort,	9	770
Tradescantia Virginica,	Virginian Spiderwort,	11	1029
Trifolium lupinaster,	Lupinaster Trefoil,	11	1034
Trigonella Ruthenica,	Russian Fenugreek,	7	610
Trillium erectum,	Erect Trillium,	13	1183
Trillium erythrocarpum,	Red-fruited Trillium,	10	936
Tritelcia laxa,	Lax-umbelled Triteleia,	8	765
Tritoma Burchellii,	Burchell's Tritoma,	10	884
Tritonia aurea,	Golden Tritonia,	13	1157
Trollius Americanus,	American Globe-flower,	9	800
Trollius Asiaticus,	Asiatic Globe-flower,	8	763
Trollius humilus,	Dwarf Globe-flower,	12	1139
Tropæolum Lobbianum,	Lobb's Indian Cress,	12	1113
Tropæolum minus,	Smaller Indian Cress,	9	839
Tropæolum peregrinum,	Exotic Indian Cress,	9	833
Tropæolum tuberosum,	Tuberous Indian Cress,	7	633
Troximon glaucum,	Glaucous-leav. Troximon,	11	1031
Tulipa Gesneriana,	Tulip, Catafalque,	13	1239
Tulipa Gesneriana,	Tulip, Cramoise pourpre,	13	1248
Tulipa Persica,	Persian Tulip,	12	1098
Tussilago alpina,	Alpine Colt's-foot,	13	1231
Ulex Hibernica,	Irish Furze,	9	822
Vaccinium disomorphum,	Tall Wortleberry,	11	990
Vaccinium fuscatum,	Red-twigg. Whortleberry,	10	945
Vaccinium myrtillus,	Myrtle Bilberry,	11	1056
Vaccinium ovatum,	Ovate Whortleberry,	11	1003
Vaccinium vitis idæa,	Cowberry,	7	664
Valerianella congesta,	Close-headed Corn-salad,	11	1002
Veratrum nigrum,	Dark-flowered Veratrum,	10	927
Verbena incisa,	Cut-leaved Verbena,	7	665
Verbena teucrioides,	Germander-like Verbena,	9	785
Veronica decussata,	Cross-leaved Speedwell,	11	986
Veronica repens,	Creeping Speedwell,	11	991
Vesicaria grandiflora,	Large-flowered Vesicaria,	7	660
Viscaria oculata,	Dark-eyed Rock Lychnis,	11	966
Viola biflora,	Two-flowered Violet,	12	1090
Viola Palmaensis,	Tree Violet,	7	663
Viola palmata,	Variegated Palmate Violet,	8	675
Viburnum opulus,	Yellow-fruit. Guelder-rose,	13	1238
Weigela rosea,	Rose-coloured Weigela,	13	1181
Wulfenia Carinthiaca,	Carinthian Wulfenia,	8	688
Zauschneria Californica,	Californian Zauschneria,	13	1201
Zephyranthes candida,	White Zephyranthes,	7	655



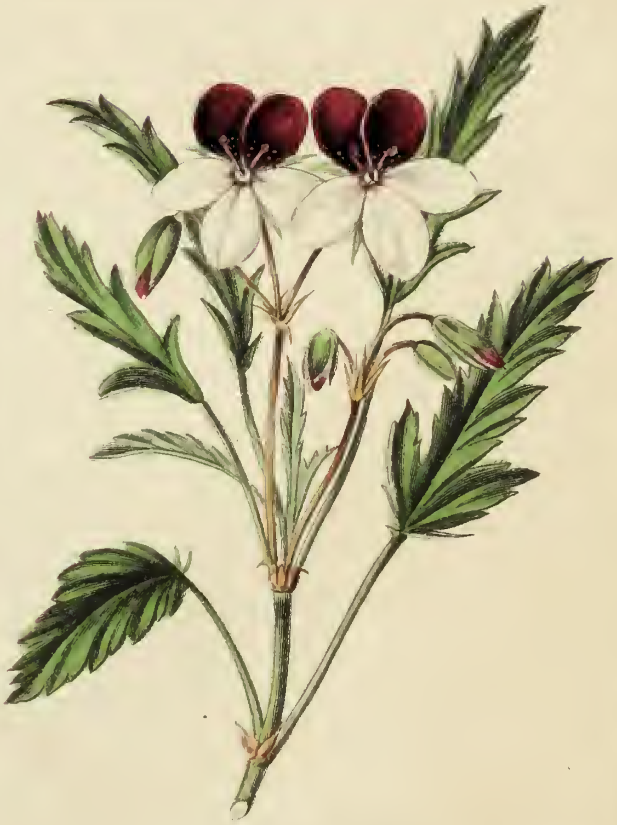
Papaver amœnum. ⅔



Heliophila trifida.



Sedum Kamtschatkia. ¾



Pelargonium tricolor.

PAPA'VER AMŒ'NUM.

PLEASING POPPY.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
PAPAVERACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
India.	2½ feet.	June, July.	Annual.	in 1838.

No. 1153.

The word Papaver, it is said, was derived from the Celtic PAPA, signifying pap, in allusion to the juice of the Poppy having been used as a sedative in the food or pap given to children. From papa, the Latins adopted the name papaver; the Anglo-Saxons, papig; the English Poppy; and the French pavot.

Opium, the produce of the Poppy, (Papaver somniferum) seems to have been known both to the Greeks and Egyptians, several hundred years before the Christian era; and from thence to the present day its use has been continued as an antidote to pain, both bodily and mental.

Whether the beautiful Papaver amœnum, now published, has administered to the obliviousness of Indians we have no information. It was raised in the London Horticultural Society's Gardens, from seeds, which had been received from the North of India, from Dr. Falconer. It requires no further attention than common annuals; and its white-based, very brilliant, vermillion flowers, especially should they hereafter be produced double, will excel the admired Ranunculus Poppy.

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HELIO'PHILA TRI'FIDA.

TRIFID HELIOPHILA.

Class.	*Order.*
TETRADYNAMIA.	SILIQUOSA.

Natural Order.
BRASSICACEÆ.

Native of C. G. Hope.	Height. 9 inches.	Flowers in July, Sept.	Duration. Annual.	Introduced in 1819.

No. 1154.

The word Heliophila is compounded from the two Greek words HELIOS, the sun; and PHILOS, to love. This name may at once be pronounced to be sufficiently applicable, when it is seen that the whole genus, consisting of about fifty species, are natives of that sunny, sandy, corner of the earth, the Cape of Good Hope.

Although gardening, excepting grape culture, has been little attended to at the Cape of Good Hope, there exists a practice of the Malays, from which it would well become the more civilized British to learn. These people are exceedingly attentive to their burial grounds, which are not left the neglected, and it may be said, loathsome depositories of the mortal portions of those we have loved, but are decorated as gardens, and neatly kept as attractive retreats for contemplative minds.

The Heliophila trifida is a pretty, half-hardy, annual, a native of the sandy plains near Cape Town, therefore in cultivation should have a light sandy soil. Vegetation of the seeds should be forwarded in the hot-bed, and the seedlings transferred to the borders in May.

SE'DUM KAMTSCHAT'KIA.

KAMTSCHATKIA STONECROP.

Class.	*Order.*
DECANDRIA.	PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of Kamtscha.	Height. 8 inches.	Flowers in June, July	Duration. Perennial.	Cultivated in 1846

No. 1155.

The habit of most of the Sedums justifies this name from the Latin sedeo, to sit. It is not alone from their apparently resting ON their place of growth, but from the fact that they do so, inasmuch as they cannot grow into stones and tiles, which they frequently adopt as their places of vegetation, both in our own and hotter climates.

This species of Sedum, which appears to have been lately introduced, we received from Mr. Moore, of Perry Bar, near Birmingham, under the name here adopted. It is a hardy and ornamental plant, deserving attention as a border ornament. These fleshy or succulent plants are not alone singular, but interesting, and we cannot reflect on their tenacity of life, in those arid and scorching situations in which many of them are usually found, without recognising a striking peculiarity in their conformation, and power of retaining fluids. The generality of plants, when exposed to a dry situation, lose their moisture, wither, and die. But not so with our Sedums, Semperviums, Aloes, and others of this class, called Succulents. They have a life-preserver wrapped about them—not a protector from the sea, but the sun. This is their cuticle, which, as observed by Sir J. E. Smith, admits of the passage of fluids from within as well as from without, but in a due and definite proportion in every plant; consequently, it must be porous, and the microscope shows what reason would teach us to expect, that its pores are different in different kinds of plants. In very succulent plants, as Aloes, a leaf of which being cut off, will lie for many weeks, in the sun without drying entirely, and yet when perfectly dry, will become plump again in a few hours, if plunged into water, the cuticle must be very curiously constructed, so as to admit of ready absorption, and yet very tardy perspiration. Such plants are accordingly designed to inhabit hot sandy countries, where they are long exposed to a burning sun, with very rare supplies of rain.

The rational cultivator will avail himself of this knowledge in his treatment of succulent plants, and will endeavour to place them under circumstances somewhat analogous to those to which they are subjected by nature herself. Seeing, then, the deficient powers of perspiration under which these plants exist, he will, of course, expose them to a dry atmosphere, and thus assist them in expelling any superabundance of fluids, taken up by the roots. If in winter, when the action of the cuticle is still more languid than in summer, the roots be supplied with much water, decay will be the result. During winter many of these plants succeed best by being entirely deprived of water, except that carried by the atmosphere, which is found to be sufficient, even in a sitting room with constant fire.

PELARGO'NIUM TRI'COLOR.

THREE-COLOURED STORK'S BILL.

Class.
MONADELPHIA.

Order.
HEPTANDRIA.

Natural Order.
GERANIACEÆ.

Native of C. G. Hope.	Height. 1 foot.	Flowers in all seasons.	Duration. Perennial.	Introduced in 1791.

No. 1156.

All the plants which are now called Pelargoniums, were originally arranged under Geranium. The extent of the latter comprehensive genus, as originally constituted, rendered it desirable that the species should be divided.

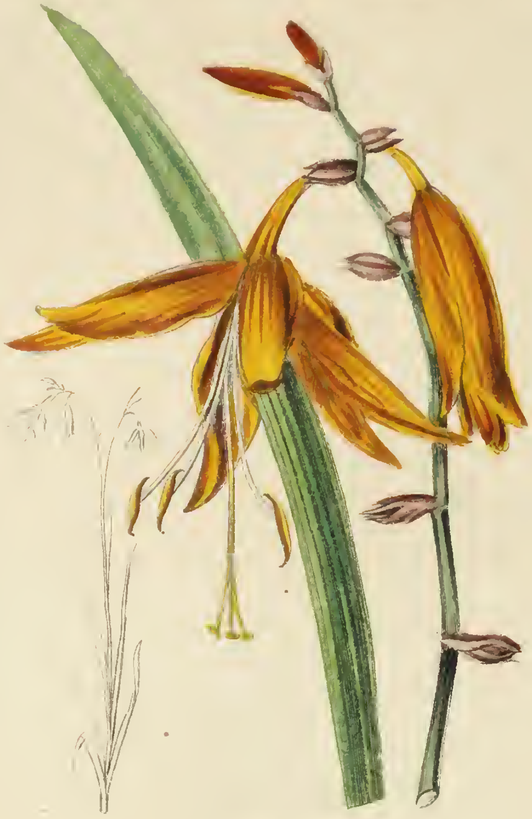
The principle on which the Geraniums, of the older botanists were distributed, arose out of the fact that some were found with ten perfect stamens, others with seven, and others with four only. Hence those species which possessed ten, were retained as Geraniums; those with seven only are distinguished as Pelargoniums; and those with five only are Erodiums.

The terms which are here employed must be acknowledged to be quite appropriate. As Geranium is from GERANOS, a crane, so Pelargonium is derived from PELARGOS, a stork; and ERODIUS, a heron, has given us Erodium. Thus, according to the original idea of Linneus, in likening the oblong seed vessel to the long beak of the bird, so have later botanists followed out the idea by still using names from birds, whose bills have the like similarity.

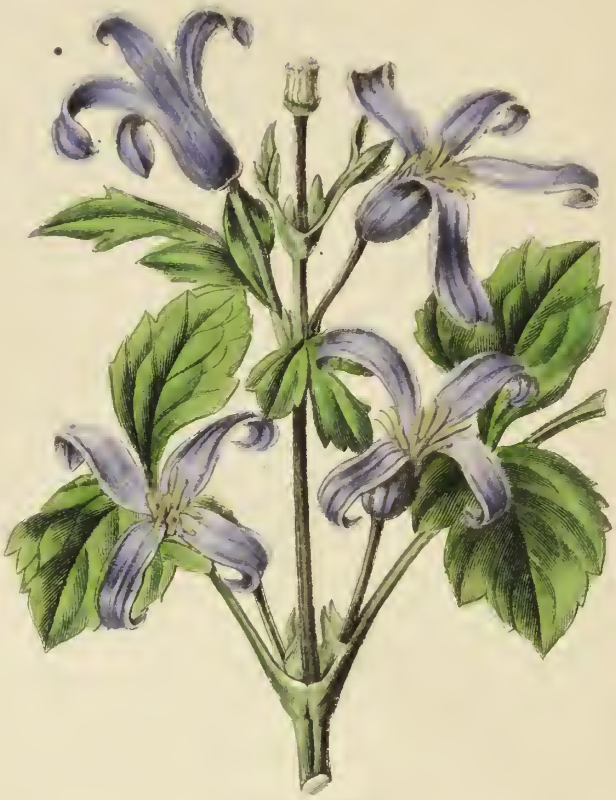
It will not be matter of surprise that a divison of these plants should have been looked upon as desirable, when it is known that the number of species already described, consist of about three hundred Pelargoniums; eighty Geraniums, and fifty Erodiums; independently of hundreds of varieties.

We should, long ago, have introduced to our readers some of these ornamental plants for window and summer garden culture, but that the pressure of other subjects has prevented our doing so. In now taking up the genus Pelargonium, it seems to be desirable to give a clear view of the parents of the favourite novelties; it will, therefore, be our first object to figure some of the old distinct species, which, by the bye, are now becoming objects of interest, amongst cultivators, and to follow these up by a selection of the best of the new seedlings, in each class, which have been propagated from them.

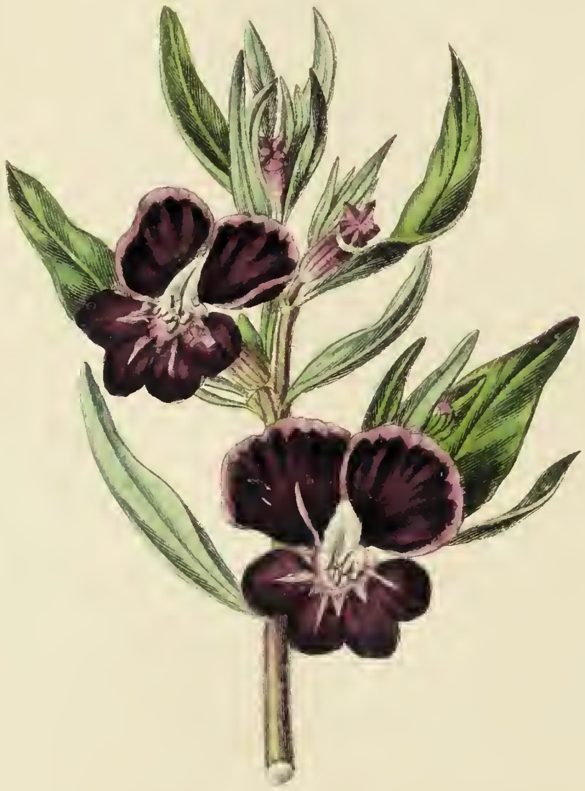
The most remarkable of the old favourites is Pelargonium tricolor, now published. This, with its allies—elatum and carinatum, are suitable for window culture where fire is only used occasionally; if constantly in the room they inhabit, the atmosphere will be kept in too dry a state for their healthy existence, and the result will be enfeebled plants, attacked by green aphis. This species should be potted in rough material, composed of equal portions of peat, or half decomposed leaves, and turfy loam, with a little very coarse sand. It should be fresh potted in July, and plunged into an open part of the garden, and watered when requisite. In the second week of September it should be taken into the house, and preserved with due regard to the above precaution.



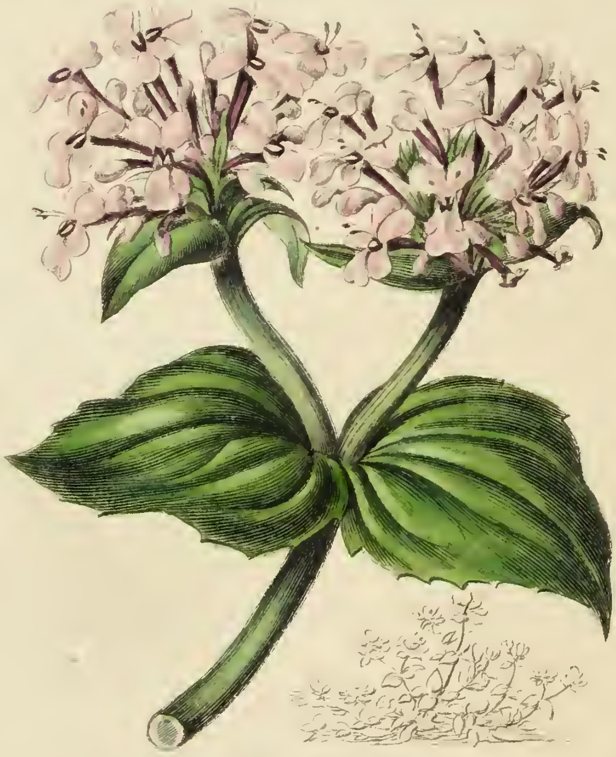
Tritonia aurea. 2/3



Clematis tubulosa. 1/2



Cuphea silenoides.



Fedia cornucopiæ. 3/4

TRITO'NIA AU'REA

GOLDEN TRITONIA.

Class.
TRIANDRIA.

Order.
MONOGYNIA

Natural Order.
IRIDACEÆ.

Native of C.G.Hope.	Height. 3 feet.	Flowers in Aug.& Sep.	Duration. Perennial.	Introduced in 1846.

No. 1157.

Tritonia, from triton, a weather-cock, has been adopted as the name of this genus, on account of the inconstant direction of the stamens in different species.

"Of all the genus," says Sir W. J. Hooker, "this is the most beautiful." A bed of it would be a far more striking object than the gaudy Gladiolus psittacinus, No. 536.

We regret, exceedingly, that our figure of this flower conveys so inadequate an idea of its beauty. Had the plant, in healthy bloom, come under our own observation, the drawing would have been rejected; but, like our artist, we only saw a small specimen, which, it seems, had been injured by exposure. When well grown, the scape is panicled, the flowers open freely, and the plant continues long in beauty.

The bulbs of Tritonia aurea should be potted in Autumn, in turfy loam, peat, and sand; have winter protection in a frame; and in May, be planted out under a south wall. When the plant has flowered, and is declining, it will be advantageous to place over it a cap glass, to assist in well maturing the bulb.

CLEM'ATIS TUBULO'SA.

TUBULAR-FLOWERED VIRGIN'S BOWER.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of China.	Height. 2 feet.	Flowers in September.	Duration. Perennial.	Introduced in 1845.

No. 1158.

Clematis, signifying twiggy, is a well chosen name for the slender wiry stems that prevail amongst the plants of this genus; the present specimen is, however, of all that we have met with, the most imperfectly described by the appellation. Had Linneus seen only this, when he became the European Adam, he would certainly have given it a different title.

This newly-introduced Clematis is, indeed, the least like a Clematis of any brought into cultivation. Being of erect growth, and but about two feet in height, it will form a rather handsome border plant; its clusters of blue flowers being conspicuous amongst its ample foliage. It is a native of northern China, and is likely to bear our winters without injury, nevertheless, one plant should be secured by frame protection, whilst the strength of others may be tested, in various situations, against the grasp of British ice.

There are one or two species of Clematis which, according to Dr. Lindley's Vegetable Kingdom, are employed medicinally, for rather singular purposes. In treating of the order Ranunculaceæ, of which it is said, acridity, causticity, and poison, are the general characteristics, it is further remarked, "Ranunculus flammula, and sceleratus are powerful epispastics, and are used as such in the Hebrides, producing a blister in about an hour and a half. Their action is, however, too violent, and the blisters are difficult to heal, being apt to pass into irritable ulcers. Beggars use them for the purpose of forming artificial ulcers, and also the leaves of Clematis recta, and flammula."

However much may, of late, have been said, regarding beggars, they seem to be but the regular succession of one of the frail parts of a whole, which ever has and is likely still to form a portion of the human family.

Gerard, who wrote almost three hundred years ago, in allusion to the Ranunculus flammula, says, "Cunning beggers do vse to stampe the leaues, and lay it vnto their legs and arms, which causeth such filthy vlcers as we daily see among such wicked vagabonds, to moue the people the more to pittie." Just so do cunning practices continue.

Clematis flammula, to which reference is above made, as possessing acrid properties, is a hardy climber, that for the pleasant fragrance which it diffuses for some distance around itself, should have a place in every garden. It is suitable for training on a trellis; or in some situations, it may be conveniently trained as is done in the neighbourhood of Paris; which is merely by supporting it as single detached shrubs, on upright stakes, to the height suited to its situation, where it produces a mass of odoriferous white blossoms.

CU'PHEA SILENOI'DES.

CATCHFLY CUPHEA.

Class.
DODECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LYTHRACEÆ.

Native of Mexico.	Height. 1 foot.	Flowers in September.	Duration. Annual.	Introduced in 1845.

No. 1159.

The crooked capsule or seed vessel, alluded to in the name of this plant, is a character which will be evident on the slightest examination; and may tend to remind the young botanist of the Greek word CUPHOS, a curve. The specific name silenoides, or silene-like, is a name chosen from its resemblance to Silene quinquevulnera.

Cuphea silenoides must be looked on as a desirable annual, although its colour is not brilliant. What it lacks in the brilliance, it makes up in the abundance, of its flowers, which are produced during the two or three latter months of summer.

This plant first became known to Europe through the gardens of Silesia, having been there received from its native country, Mexico. It is, doubtless, an important feature of botany, and one most pleasing to contemplate, that its pursuit brings men of kindred minds—of all nations—of all creeds, into closer ties of brotherhood. Nationalities interfere not, and each gives to each, the pleasure being equal to him that contributes and him that receives. Naturalists are, indeed, peculiarly dependent on each other for accessions to their stock of knowledge, although the globe's diameter divide their scene of action. Well has Pope said—

> "Look round our world; behold the chain of Love
> Combining all below and all above.
> See plastic Nature working to this end,
> The single atoms each to other tend.
> Attract, attracted to, the next in place
> Form'd and impell'd its neighbour to embrace.
> See matter next, with various life endu'd,
> Press to one centre still, the gen'ral good.
> See dying vegetables life sustain,
> See life dissolving vegetate again:
> All forms that perish other forms supply,
> (By turns we catch the vital breath and die)
> Like bubbles on the sea of matter borne,
> They rise, they break, and to that sea return.
> Nothing is foreign; parts relate to whole;
> One all-extending, all-preserving soul
> Connects each being, greatest with the least;
> Made beasts in aid of man, and man of beast;
> All serv'd, all serving: nothing stands alone;
> The chain holds on, and where it ends unknown."

Cuphea silenoides, like some others of its genus, already published, is well suited for filling entire beds, where the extent of the garden admits of this arrangement. Its seeds should be sown in a hotbed, in March; the young plants, when an inch high, potted singly in the smallest pots, or in threes in larger ones; kept with protection till the end of April, and then transferred to their final place of growth. It should be remembered, that previously to transferring seedlings from a hotbed into the open ground, they should be hardened gradually.

FE'DIA CORNUCO'PIÆ,

RED FEDIA.

Class.
DIANDRIA.

Order.
DIGYNIA.

Natural Order.
VALERIANACEÆ.

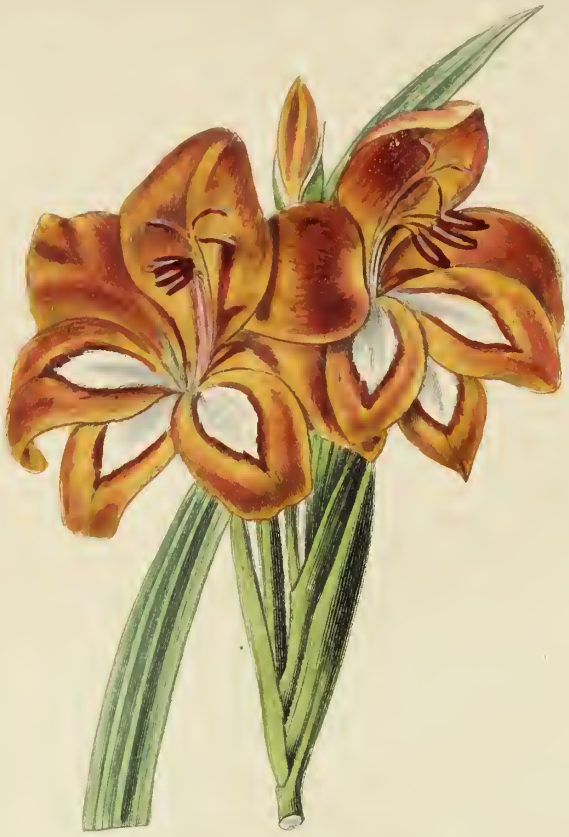
Native of S.Europe.	Height. 1 foot.	Flowers in September.	Duration. Annual.	Cultivated in 1796.

No. 1160.

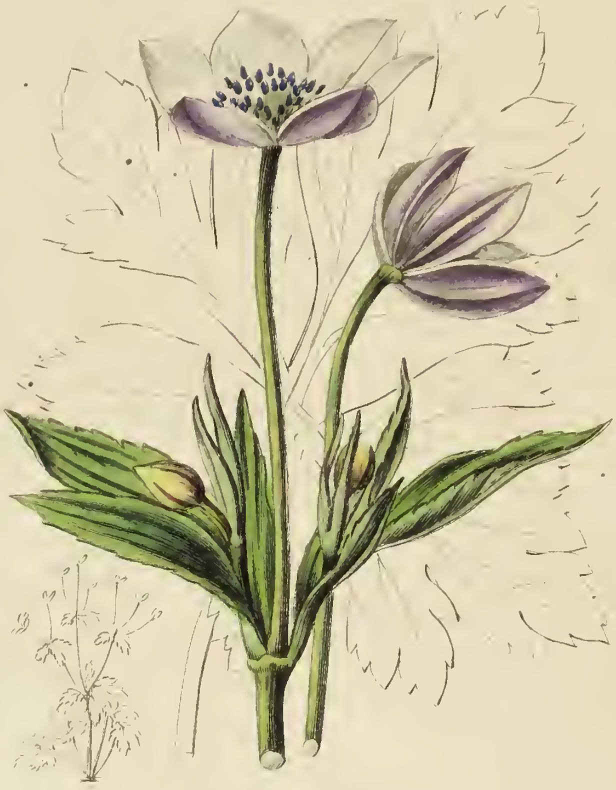
The name, Fedia, says Sir J. E. Smith, originated with Adanson, and seems to be derived from FEDUS, an ancient word for HÆDUS, a kid. There seems, however, to be no certainty regarding the meaning which Adanson intended the name should imply, hence some authors have ventured to assert, that it was adopted without intention of its bearing any allusion to the plants so designated.

The genus was formed out of Valeriana, and the present plant is indeed very closely allied thereto; more so, perhaps, than any other of its species. So gradually varying are the progressive links in the chain of vegetables, from the most minute herb, up to the patriarch of the forest, that the acumen of the profoundest botanist is sometimes insufficient to determine the precise point at which one family shall be separated from another.

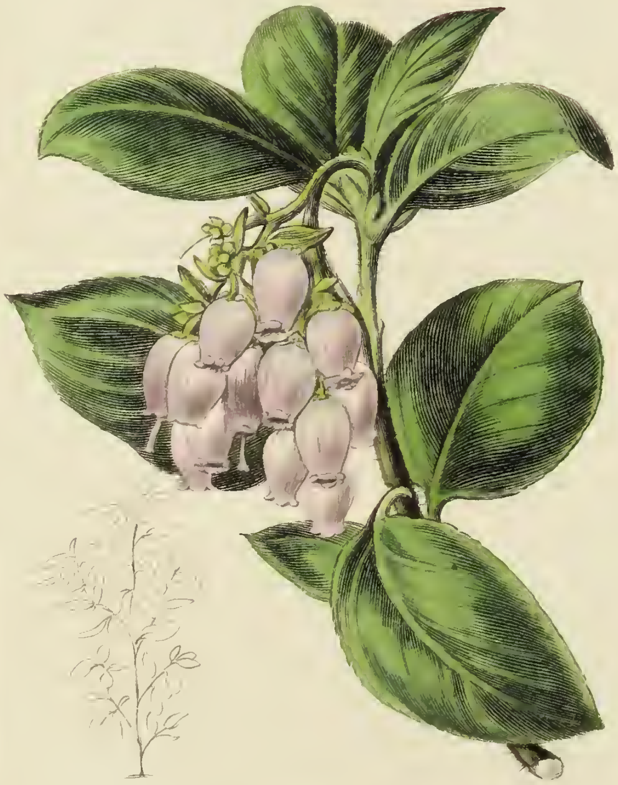
This annual, which has lately been re-introduced to our gardens, will advantageously add to the variety of summer beauties in the mingled parterre; where, from its low growth, it should be placed near to the front. It is also well suited for growth in masses.



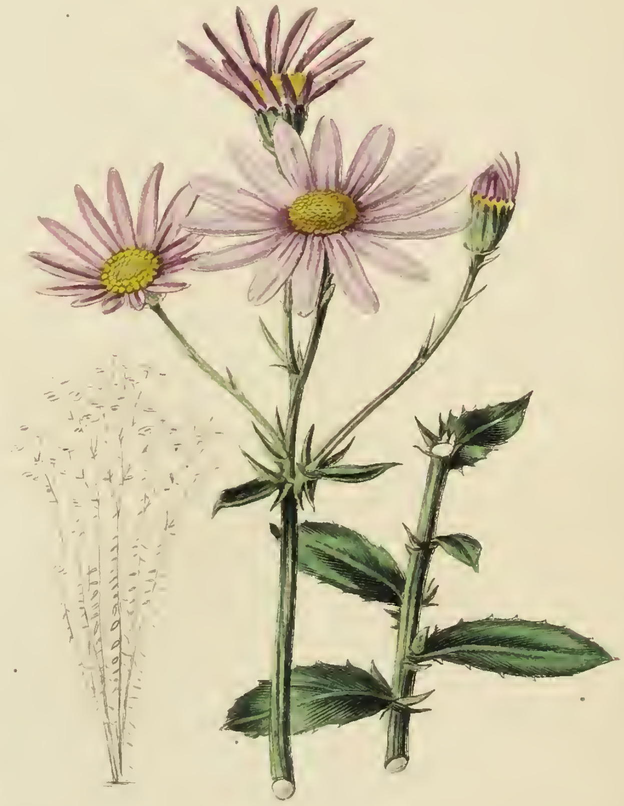
Gladiolus ignescens.



Anemone nivalis.



Arbutus tomentosa.



Seniceo lilacinus.

GLADI'OLUS IGNES'CENS.

BRILLIANT CORN FLAG.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Of hybrid Origin.	Height. 3 feet.	Flowers in August.	Habit. Bulb.	Cultivated in 1844.

No. 1161.

Under No. 1113, we published Gladiolus Gandavensis, and there promised the mode of culture, as practised by Mr. Cole, in the garden of J. Wilmore, Esq., of Oldford, to whose collection we are further indebted for specimens of the present and other newly-raised hybrid varieties.

Gladiolus ignescens is in truth, a beautiful flower, and will further tend to show the value of the various species, when the variableness of their beauty is mingled together by hybridisation. Flowers in the hand of the gardener are becoming as pigments in the hand of the artist. Combinations are made, and new beauties developed, that previously had been unthought of, by even the operator himself,

Although, for convenience, we adopt popular names, it must be remembered that these Gladioli are but varieties; the present one, having been raised between Cardinalis and some other species.

From the tendency to early growth of all the Cardinalis section, its varieties require to be potted early in November. The compost should be equal parts of peat, leaf-mould, and hazel loam, with the addition of a little sand. The pots to be well-drained, and the bulbs inserted an inch below the surface of the compost, which must be moist, but by no means wet, nor must any water be given at the time of planting. The pots are then to be plunged in sand or ashes, in a pit or cold frame, and protected from frost during winter, giving air abundantly in all mild weather; but no water till the plants begin to make free growth, and then sparingly till the beginning of April, after which time, it may be given liberally.

Many varieties of this section, when grown in England, rest but a very short time, and some not at all; commencing their growth before their removal from the flower bed; it is, therefore, advisable after potting, to place all those in a forward state together, at one end of the pit or frame, so that they may conveniently receive more moisture and less exposure, than those in a partially dormant state. As the season advances, give them more and more exposure, so as gradually to prepare them for their new habitation in the open beds.

The beds to receive these plants should be made of light rich soil, and the bottoms drained by rubble of any description that will admit the escape of superabundant moisture, and also encourage ventilation of the soil above. The plants being gradually hardened, by the beginning of May, turn them, with their balls of earth undisturbed, into the beds, an inch beneath its surface, and about six inches apart, where they require no further care but tying to proper supports, and good watering occasionally. When their foliage turns colour they may be taken up again.

ANEMO'NE NIVA'LIS.

SNOWY ANEMONE.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of India.	Height. 18 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1844.

No. 1162.

The generic name, Anemone, has been noticed under No. 1105, where was introduced the Anemone Japonica, which had been brought to England from China, by Mr. Fortune. Another novelty, from the same quarter of the globe, is here brought under consideration; and its flowers of snowy white, as its name implies, but with shaded purple exterior, are deserving of the attention of the numerous cultivators who are now desirous of exhibiting the manifold beauties attainable in the open flower garden.

With this new species we were favoured by the Messrs. Pope, of Handsworth, who state that it was raised by Mr. Moore, Curator of the Glasnevin Botanic Garden, Dublin, from seeds, which it is believed had been brought to this country from North India. It is a plant which has hitherto admitted of but very slow increase by the division of offsets, therefore its chief propagation must be dependant on seeds.

Much knowledge of its habits has not yet been obtained; it has, however, proved fully capable of bearing our winter frosts; and appears to flourish in a dry situation.

AR'BUTUS TOMENTO'SA.

WOOLLY-LEAVED STRAWBERRY-TREE.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICACEÆ.

Native of N.America.	Height. 6 feet.	Flowers in March	Habit Shrub.	Introduced in 1826.

No. 1163.

The derivation of the name Arbutus is stated at No. 1132. Its origin is probably from the Celtic language rather than the Latin.

This is one amongst the numerous North American shrubs which continues to be little known in our shrubberies, although not unsuitable to an English climate, and very distinct from any of its congeners. It must be admitted that the Arbutus unedo or common strawberry-tree, (No. 361) with which every one is familiar, equals or, perhaps, it may be thought excels in beauty the Arbutus tomentosa; their character is, however, altogether distinct; and variety is a prominent element in the gratifications derivable from a garden. It is said by South that "Novelty is the great parent of pleasure, upon which account it is that men are so much pleased with variety."

Arbutus tomentosa may be propagated by grafting it on stocks of the common sort; or where there is the command of an established plant, it may be readily increased by layering; which, with these hard-wooded evergreens, is best effected soon after midsummer.

SENE'CIO LILA'CINUS.

LILAC-FLOWERED GROUNDSEL.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
ASTERACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
C. G. Hope.	4 feet.	May, June.	Perennial.	in 1826.

No. 1164.

The name Senecio is derived from the Latin senex, an old man. Allusion is here made to the white downy heads of seed; which, with sufficient truth, are compared to the whitened head of time-honoured humanity.

Senecio lilacinus forms a handsome erect plant, from four to five feet high, with a handsome head of flowers, and well suited for the back of the herbaceous border, continuing long in flower.

It is not sufficiently hardy to remain in the borders during winter. Cuttings should be struck in the latter part of summer, and be protected from frosts during winter. The cold frame will afford it sufficient protection, but the amateur, in the use of this, or other protective apparatus, should beware of being taken by surprise. Frost will sometimes slyly and unexpectedly pounce on a favourite plant and wither our hopes in an hour; it therefore behoves the cultivator, of half-bred plants more especially, to be always prepared for the enemy.

As applicable to this subject, we cannot resist the temptation of copying a little poem, in which Frost is made to describe its own doings.

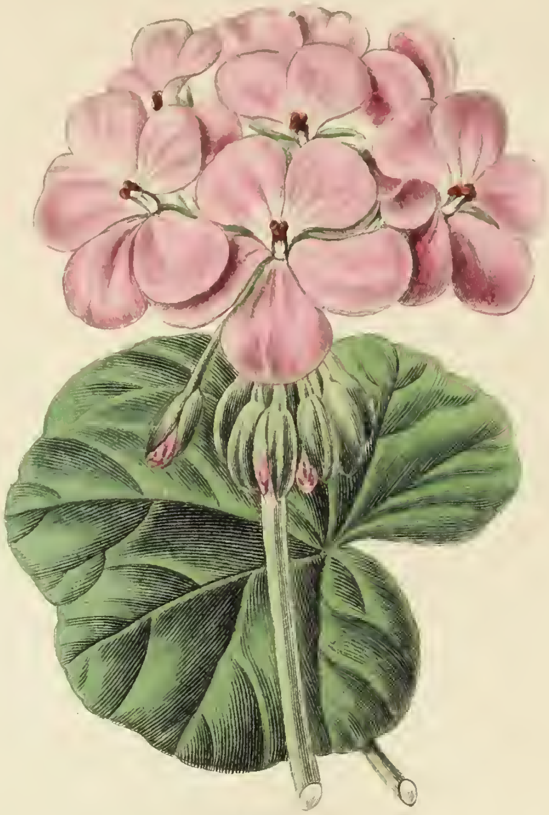
"The Frost looked out one still, clear night,
And whispered, " Now I shall be out of sight:
So through the valley, and over the height,
In silence I'll take my way;
I will not go on like that blustering train,
The wind and the snow, the hail and the rain,
Who make so much bustle and noise in vain;
But I'll be as busy as they."

Then he flew to the mountain and powdered its crest;
He lit on the trees, and their boughs he drest
In diamond beads; and over the breast
Of the quivering lake he spread
A coat of mail, that it need not fear
The downward point of many a spear,
That he hung on its margin far and near,
Where a rock could rear its head.

He went to the windows of those who slept,
And over each pane like a fairy he crept;
Wherever he breathed, wherever he stepped,
By the light of the moon were seen
Most beautiful things,—there were flowers and trees;
There were bevies of birds and swarms of bees;
There were cities with temples and towers;
And these all pictured in silver sheen!

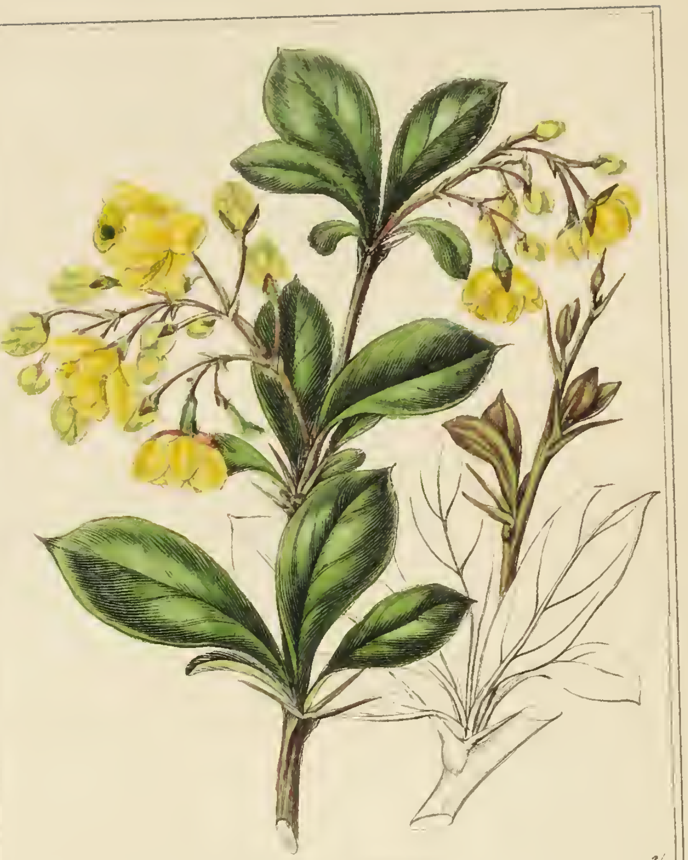
But he did one thing that was hardly fair,—
He peeped in the cupboard, and finding there
That all had forgotten for him to prepare,
" Now just to set them a-thinking,
I'll bite this basket of fruit," said he,
" This bloated pitcher I'll burst in three;
And the glass of water they've left for me,
Shall *tchick* to tell them I'm drinking."

Miss Gould.



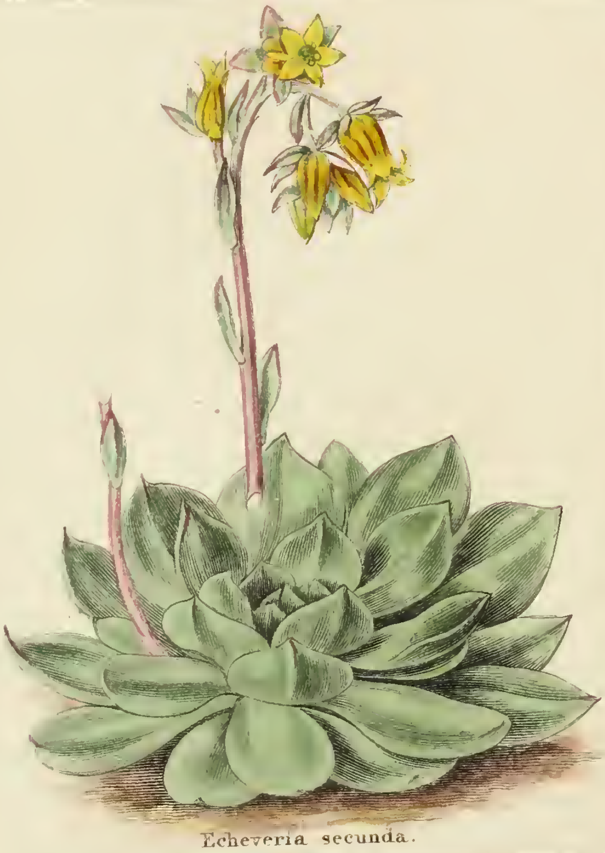
Pelargonium lucia-rosea.

3/4



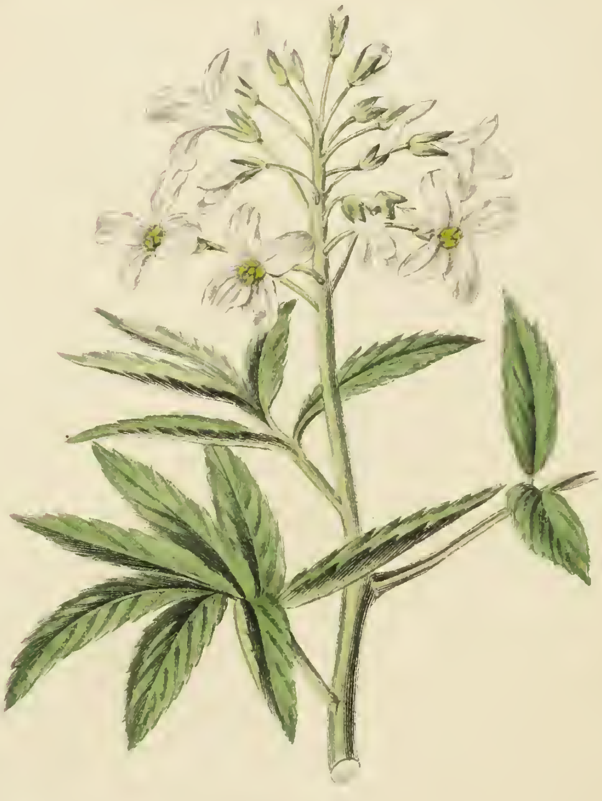
Berberis umbellata.

2/3



Echeveria secunda.

1/2



Dentaria pinnata.

2/3

PELARGO'NIUM LU'CIA-RO'SEA.

BRIGHT ROSE-COLOURED STORK'S BILL.

Class.
MONADELPHIA.

Order.
HEPTANDRIA.

Natural Order.
GERANIACEÆ.

Garden Origin.	Height. 18 inches.	Flowers in June, Sep.	Duration. Perennial.	Cultivated in 1845.

No. 1165.

Pelargonium is explained under No. 1156.

To the elder lovers of parlour-window plants it must, surely, be refreshing to turn back to Andrews's first-figured Pelargonium, in his Botanist's Repository. This was published but fifty years ago, yet here we have a straggling plant, with a still more straggling whitish flower—three narrow petals below, spreading as the legs of a telescope stand, supporting two somewhat broader petals above, and rejoicing in the title of grandiflora. We allude to this change of notions and flowers, to call attention to the important fact that all nature, under the influence of judicious culture, is progressive — all is improveable; a most encouraging truth to every human being, whether the fact be considered in connexion with himself, with the animal he has to educate, or the plant that he has to cultivate. Here too is matter for reflection under another head. Mr. Andrews looked on that flower as possessing almost superlative beauty in its class; for he says, "Of all the numerous species of this numerous tribe, introduced to us from the Cape of Good Hope, this stands singularly pre-eminent; whether for delicacy of foliage, or beauty of flower, of which the most finished drawing would convey but a faint idea". Our opinions possess but little value beyond the day that gives them birth.

In the name, Lucia-rosea, we follow the adoption of florists. It is one amongst the most interesting varieties which have lately been introduced to our gardens; it belongs to the Scarlet section, and doubtless originated from some one of its varieties. Sweet, in his Geraniaceæ, published one as cerinum — an approach to this plant, but he was unable to state whether it was a distinct species or a hybrid variety. Lucia-rosea, in addition to its well-formed flowers, and delicate colour, possesses the agreeable odour of the Scarlets.

So wide a field presents itself for the operations of the ingenious florist in the propagation of new varieties of Pelargonium, that their abundance cannot excite surprise; and from the species and varieties already described, there can be no doubt but that beautiful, and completely novel, flowers may still be raised by judicious hybridisation. We may yet see rich golden-yellow, and also double-flowered, Pelargoniums. The florist has every encouragement to press forward.

As the Scarlet section of these plants is comprised of very free growers, it is desirable to plant them in loam, with but little stimulating matter therewith, —perhaps a fifth of leaf mould, to assist in keeping it pervious. All are admirable plants for bedding out, but the soil for them should not be too rich; or, to remedy this, they should be retained in their pots and plunged.

BER'BERIS UMBELLA'TA.

UMBELLATE BARBERRY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
BERBERACEÆ.

Native of E. Indies.	Height. 4 feet.	Flowers in June.	Habit. Shrub.	Introduced in 1838 ?

No. 1166.

The name, Berberis, seems to have been used by Eastern nations, for a wild berry, and probably a species of Barberry, but its derivation is somewhat uncertain.

This is a genus of plants which, we are glad to observe, is obtaining more attention than formerly; indeed, its claims to notice are increased by the late introduction of new species. As an earth screen, in shrubberries, the dwarf species are admirable; and as they increase rapidly by offsets, they may be planted on a large scale about the borders of parks and private road-sides, where their evergreen foliage and abundant flowers would be novel and ornamental. The paucity of new shrubs in many well-kept parks is somewhat remarkable.

We have previously mentioned the peculiar irritability of Barberry flowers, but from the interest they usually excite, we may be pardoned if we again allude to it. Dr. Lindley, in explaining its peculiarities, has quoted some experiments with poison, which are interesting. He says "The stamens, when the filament is touched on the inside, with the point of a pin, or any other hard instrument, bend forward towards the pistil, touch the stigma with the anther, remain curved for a short time, and then partially recover their erect position. This is best seen in warm dry weather. After heavy rain the phenomenon can scarcely be observed, owing, in all probability, to the springs of the filaments having been already set in motion by the dashing of the rain upon them, or to the flowers having been forcibly struck against each other. The cause of this curious action, like that of all other vital phenomena, is unknown. All that has been ascertained concerning it is this, that the irritability of the filament is affected differently by different noxious substances. It has been found by Messrs. Macaire and Marcet, that, if a Barberry is poisoned with any corrosive agent, such as arsenic or corrosive sublimate, the filaments become rigid and brittle, and lose their irritability; while, on the other hand, if the poisoning be effected by any narcotic, such as prussic acid, opium, or belladonna, the irritability is destroyed by the filaments becoming so relaxed and flaccid, that they can be easily bent in any direction. It is difficult to draw from this curious fact, any other inference than this, viz., that in plants, as well as in animals, there is something analogous to a nervous principle, which is more highly developed in some plants, or in some organs, than in others."

Under section 172 of the Auctarium, a notice of several species will be found; Glumacia, Repens, and Aquifolium, are especially mentioned, and Umbellata may be included with them, as a most desirable evergreen species; throwing up suckers, when well-established, and flowering with much freedom.

ECHEVE'RIA SECUN'DA.

SECUND ECHEVERIA,

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of Mexico.	Height. 8 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1837.

No. 1167.

Echeveria, named after M. Echever, a botanical painter, who designed for the Mexican Flora.

All our own Echeverias are natives of Mexico, and one of them, it is related in "The Botanist," serves, among the aboriginal inhabitants of that country, like the Forget-me-not amongst the Europeans, as an emblem of remembrance. The wish to be remembered, by those we love, is as strong in the breast of an Indian savage, as in the most refined member of civilized society; and at parting, the one presents as fondly as the other, some token by which he desires to be recalled to the recollection of his friends. No gift can be more pure or appropriate than a flower,—the value arising not from any intrinsic worth in the present, but from the intention of the giver. It thus becomes invested with new charms, for it is then

> ———Affection's tribute, friendship's offering,
> Whose silent eloquence, more rich than words,
> Tells of the giver's faith and truth in absence,
> And says "Forget-me-not."

Echeveria secunda must be treated as a half-hardy plant in winter; in summer it may be kept in its pot, or turned out on rock-work.

DENTA′RIA PINNA′TA.

PINNATE TOOTHWORT.

Class.	*Order.*
TETRADYNAMIA	SILIQUOSA.

Natural Order.
BRASSICACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Switzerland	15 inches.	April, May	Perennial.	in 1683.

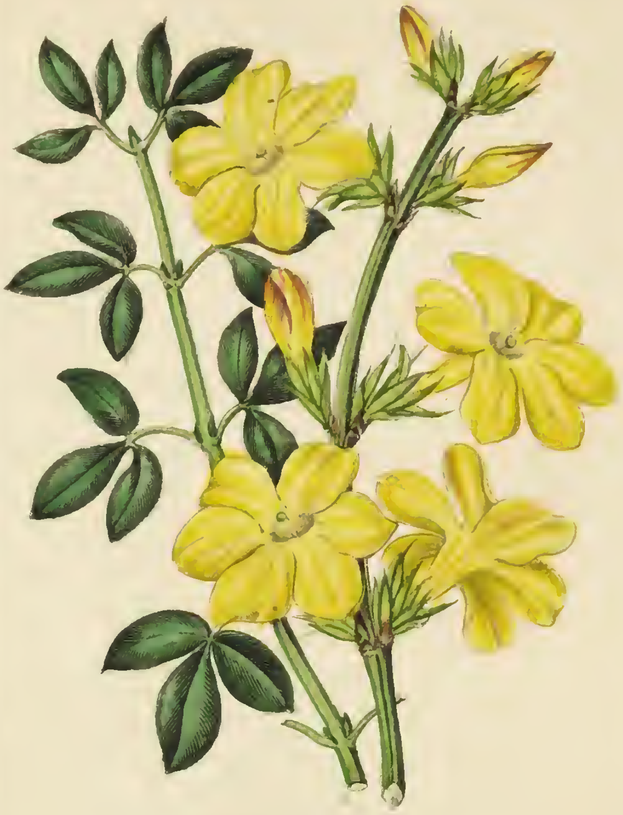
No. 1168.

This genus has been distinguished by a name founded on dens, a tooth, in allusion to the tooth-like scales of its roots.

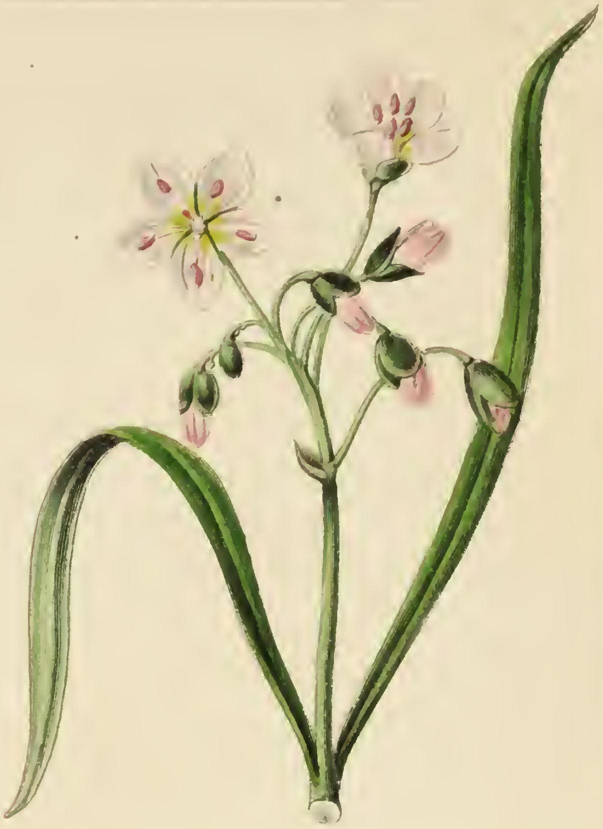
About twenty species of Dentaria are known to botanists, chiefly natives of Europe and North America; one only belonging to England, and that one more nearly related to the present species than to any other; but differing from all in a remarkable circumstance, namely, that it is bulb-bearing at the axils of its leaves, hence it is called Dentaria bulbiferum. From these bulbs it may be propagated, and as a curious and scarce English plant, we hope ere long to give a figure of it. Mr. Baxter mentions it as perfectly naturalized in the Oxford Botanic Garden.

Dentaria pinnata is found plentifully in shady places, in some parts of France, of Italy, and Switzerland, but not in the more northern parts of Europe.

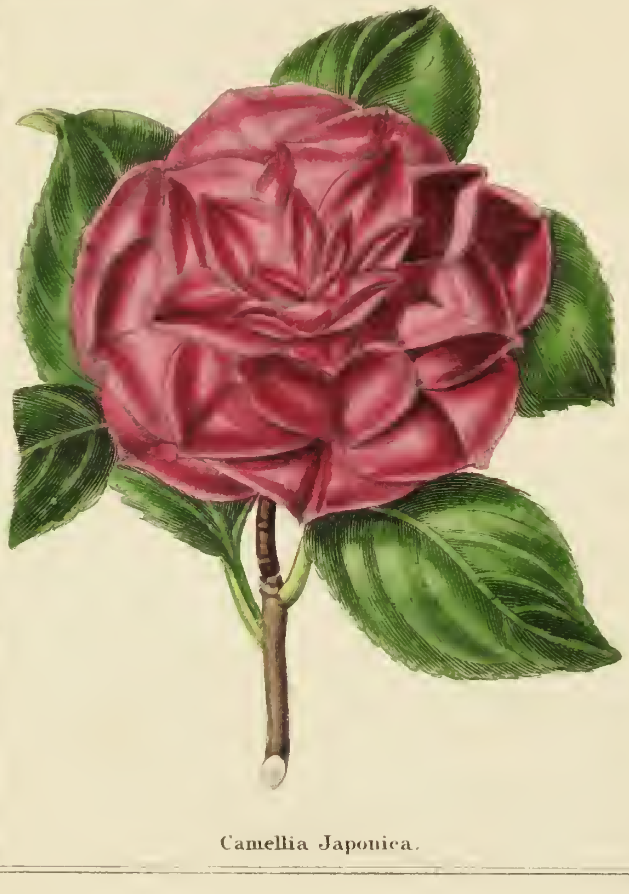
The habit of this plant is very similar to that of our English species, and will succeed under the same treatment. A light soil, in a shady situation, will not fail to encourage its growth.



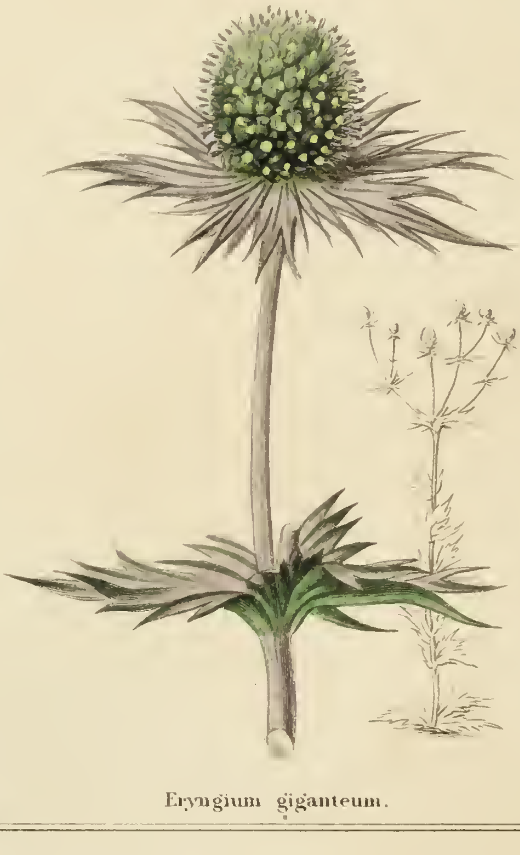
Iasminum nudiflorum. 3/4



Claytonia. 3/4



Camellia Japonica. 1/2



Eryngium giganteum. 1/2

JASMI'NUM NUDIFLO'RUM.

NAKED-FLOWERED JASMINE.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
JASMINACEÆ.

Native of China.	Height. 6 feet.	Flowers in Winter.	Habit. Shrub.	Introduced in 1845.

No. 1169.

Linneus referred the derivation of Jasminum to two Greek words, signifying violet-scented, but this explanation has not been generally accepted.

The first figure on our plate, exhibits another of the introductions from China, for which our country is indebted to the London Horticultural Society. It was first met with by the Society's collector, Mr. Fortune, as a cultivated plant, in gardens and nurseries, in China, and is by no means rare about Shanghae and Nanking. It must not be understood by our readers that the foliage and flowers, as shown in the plate of it herewith, are to be met with together in nature; no, flowering by this plant seems to be a serious business of labour to it, and is not commenced till it has, in the language of the ploughman "doffed its toggery"—thrown off its vestments, which it effects in autumn; and thus, divested of foliage, in good earnest, it sets to the work of blossoming. Our drawing was not made till the middle of February, when it was gathered from a plant, on the open wall, which flowered gaily in despite of frosty weather. Fortune says, that in its native country, its leaves fall off early in autumn, and leaving a number of large prominent flower buds, which expand in early spring, often when the snow is on the ground, and look like little primroses. Here, however, it would not rest till spring, but began to flower before Christmas, and continued, uninterruptedly, till March. That it is a valuable plant for the eye to rest upon in the dreary season of winter, there can be no doubt; and whenever a wall presents itself near to the sitting-room window, on which it can be conveniently trained, we recommend its being there planted forthwith.

Mr. Fortune has supplied an idea, out of which other ideas will involuntarily arise in the minds of many of our readers, in regard to the management of this plant, and the turning of it to account as an ornament in various forms, in the open garden, He says, "The Chinese often graft it on the more common kinds, about a foot from the ground, which improves its appearance." Now, there cannot be a doubt but that most interesting plants may be raised, by grafting this Jasmine on strong stocks of any hardy species, and thus forming standards of any desired height for potting; they will become winter plants for the hall, of more novel and interesting character than any that have been introduced for many years; especially as they continue so long in blossom.

The Jasminum nudiflorum may be so trained on its own stems, as to form standards with fine drooping heads, like miniature Willows decked with Primroses; but grafted on strong stocks of the common hardy kinds, handsome standards may at once be formed.

CLAYTO'NIA GRANDIFLO'RA.

LARGE-FLOWERED CLAYTONIA.

Class.
PENTANDRIA.

Order
MONOGYNIA.

Natural Order.
PORTULACEÆ.

Native of N. America	Height. 6 inches.	Flowers in June.	Duration. Perennial.	Cultivated in 1826.

No. 1170.

Dr. Clayton, who travelled in various parts of North America, especially in Virginia, made an extensive collection of plants, which were published in 1726. The present genus commemorates his name as a benefactor to botanical science.

For the opportunity of publishing the Claytonia grandiflora, we are indebted to the Messrs. Pope, of Handsworth, who esteem it as a finer plant than any which they have cultivated of the same genus. It is exceedingly pretty for pot culture, with alpines, but it is not indispensable that it should be so treated. In a bed of sandy peat, this and other Claytonias may be grown with success; but in wet adhesive earth, their tuberous roots are liable to decay. The advantages, in floriculture, of a friable and open soil, are not duly appreciated by the majority of cultivators; it should, however, be known, and remembered, that on this depends, very much of the success of the most experienced and best gardeners.

If well grown this plant will ripen seeds, from which, if sown as soon as ripe, abundance of increase may be obtained.

CAMEL'LIA JAPON'ICA.

Var. Imbricata.

IMBRICATED JAPAN CAMELLIA.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
TERNSTROMIACEÆ.

Native of China.	Height. 10 feet.	Flowers in April.	Habit. Shrub.	Introduced in 1824.

No. 1171.

Camellia is named after Camellus, see No. 1101.

It has been a subject of inquiry, but generally without experiments, whether the Camellia can be satisfactorily cultivated out of doors, in England. We, at once, assert that it can, and to this consideration we shall devote the present article. It has long ago been proved that the Camellia possesses as hardy a constitution as the Laurel, but its vegetative powers are more easily excited, and as regularly continued as in that plant, whilst placed under the influence of a moist stimulating soil, till checked by severe weather. In this lies the error that has attended the out-of-door culture of the Camellia. Its growth has been encouraged up to the very verge of winter, when frost has enveloped its succulent shoots, filled with watery, half-elaborated sap, which, in such state, readily yield to its influence, and the health of the whole plant becomes thereby affected. The disease being discovered, the remedy is evident. In its native climate it bears frost with impunity; the principal varying circumstance, under which it there exists, is a far higher temperature in summer, than England possesses; which drying up the moisture of the soil, checks its succulent growth, and at the same time, inspissates its juices; and thereby maturing its wood, fits it for perfecting its flowers, as well as enduring our changeable, and sometimes severe, winters.

Now, the aim of the cultivator should be, as far as circumstances permit, to produce the same effects; but as he cannot, out of doors, raise the temperature of his garden, to inspissate the juices of his plant, he must deprive it of the means of acquiring such a supply of water as shall encourage a protracted growth, and an accumulation of thin fluids in its tender branches. The power of effecting this is pretty much at his command, at a very insignificant cost.

In the first place, a wall should, of course, be given to the Camellia. A northern aspect has been recommended for it, and under careless management it has advantages, but we prefer a south-west aspect, which affords so great an advantage in the autumn, by its assistance in maturing the young shoots; and to prevent, in this aspect, the exciting influence of the sun, very early in spring, we entirely shade the tree by a boarded screen, as we do our bees, to prevent their being enticed out and destroyed. Their cases are very similar.

Next, as to soil. Take out the earth, two feet deep, fill in with broken bricks, none larger than tulip bulbs, mixed with rough peat or half-decayed leaf-mould, to within nine inches of the surface. Plant on this, in a mixture of loam, peat, and sand; and, ere long, further information shall be given; this is ample for the present.

ERYN'GIUM GIGANTE'UM.

GIANT ERYNGO.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
APIACEÆ.

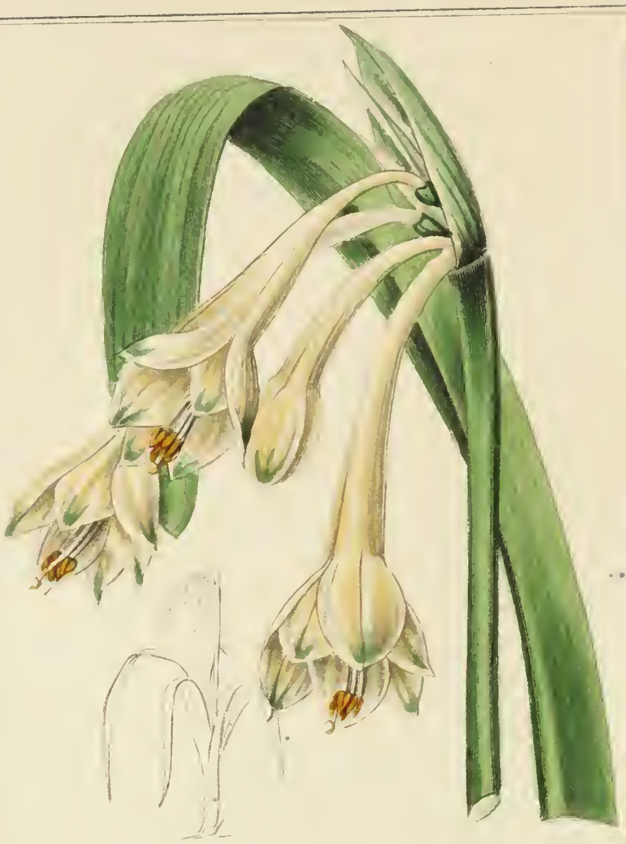
Native of Caucasus.	Height. 3 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1820.

No. 1172.

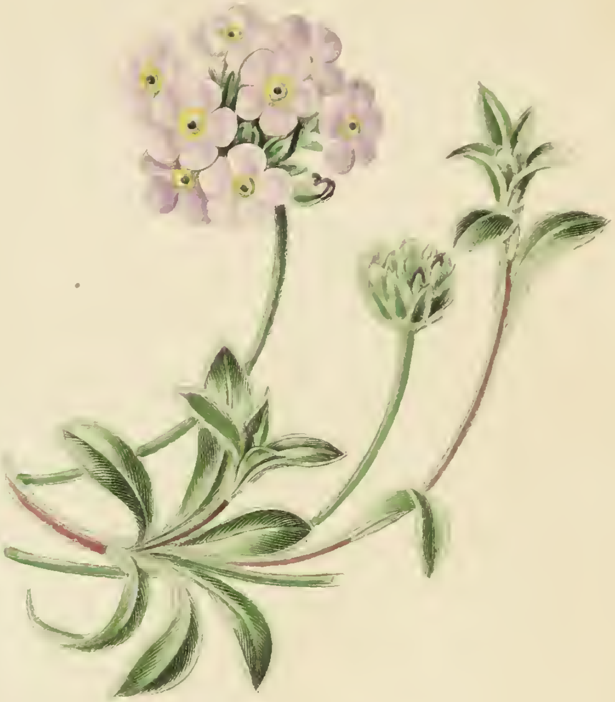
The name Eryngium was adopted by the Greeks, long before the Christian era, and the written description of the plant being sufficiently definite to enable Linneus to identify it, he, of course, gladly continued the name to the plant, originally so called by the ancients.

This is a family of rather singular thistly-looking subjects, whose beauty principally exists in their involucre or leaves surrounding the head of flowers. These, in some of the species, are of so bright and peculiar a purplish blue tint, as always to excite admiration. Planted near the fronts of shrubbery borders, or on mounds of herbaceous plants, they have a pleasing effect; their height will, of course, direct the cultivator in the choice of situation for their growth.

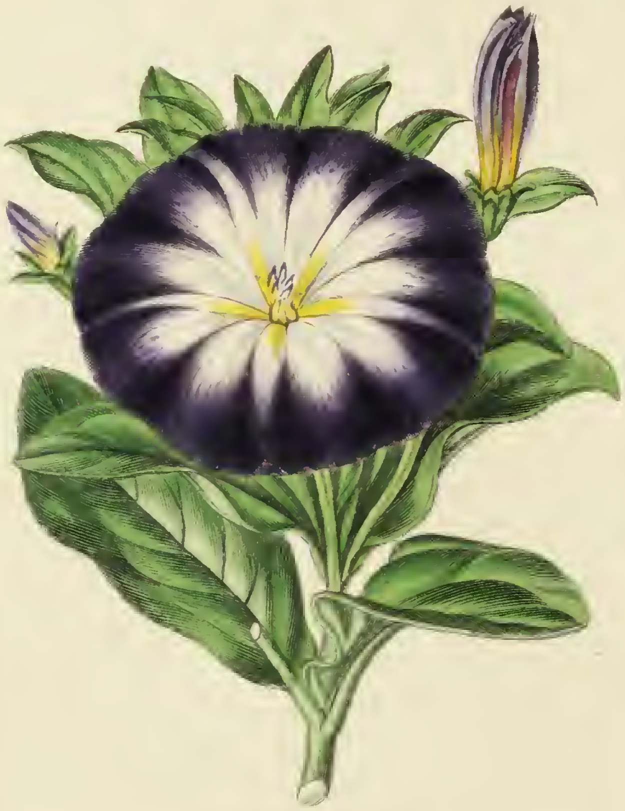
Candied Eryngo, made of the roots of the Eringium maritimum, or Sea Holly, a sea-coast plant, although now less used than formerly, is not forgotten, and is still prepared by confectioners. Gerard says "It is exceedingly good to be given unto old and aged people that are consumed and withered with age."



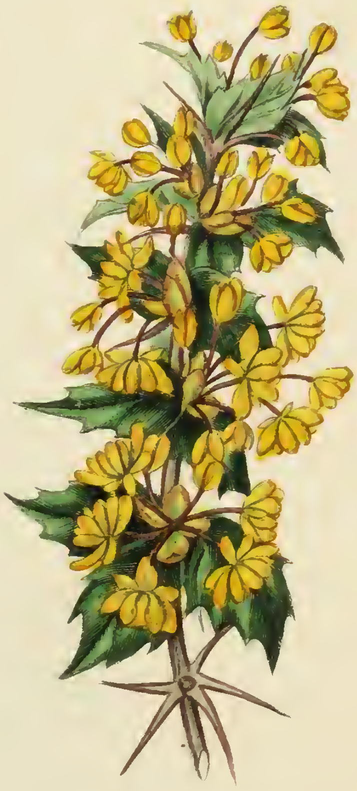
Coburgia fulva. ½



Androsace lanuginosa.



Convolvulus tricolor.



Berberis actinacantha. ½

COBUR'GIA FUL'VA.

TAWNY COBURGIA.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDACEÆ.

Native of S. America	Height. 2 feet.	Flowers in March.	Habit Bulb.	Introduced in 1827.

No. 1173.

The present genus has been named in honour of Prince Leopold of Saxe Coburg; now king of the Belgians.

This handsome bulbous plant flowered in the collection of J. Wilmore, Esq., of Oldford, to whom we are indebted for the opportunity of figuring it. Mr. Cole, gardener, at Oldford, obligingly, not only afforded facilities for its being drawn, but communicated his mode of managing such bulbs without the aid of artificial heat.

The Coburgia fulva has been but little cultivated on account, probably, of its being, like some of the Cape bulbs under the usual management, a somewhat shy flowerer. Cultivated according to the following directions, this complaint will be removed, and we will enumerate a few others, that will form an interesting group to place under the same treatment. These are the Brunsvigias, Nerines, Pentlandias, Griffinias, Amaryllis belladonna, and Vallota purpurea.

In a brick pit, adapted to a cold frame, which we have lately described, lower the moveable floor to within two feet of the top of the brick sides; place thereon six inches of draining material, and on this lay a stratum of compost, a foot thick, composed of sharp sand, two parts ; leaf-mould or peat, one part; and fresh loam, one part. These should be well mixed, in a moderately dry state. In this, plant the bulbs, towards the end of October, give no water but protect from frosts, and give air at all favourable opportunities. They will probably begin to vegetate early in February ; still, however, continue the same treatment till the beginning of April, when a little sprinkling of water must be supplied in a morning, according to the luxuriance of the plants. In full growth they will demand to be watered abundantly, once or twice a day, according as the compost may indicate, and at the same time, after giving air early in the morning, close the frames during the warm part of the day, and thereby raise the temperature, not letting it exceed 90 degrees by the thermometer, but never open the frame late in the day. After the plants have made their growth, subsequently to flowering, gradually decline giving any water ; give air morning and afternoon, but in the middle of the day, from ten to four, close the frames and permit the thermometer to rise even to 100 degrees, before cool air is admitted. Continue this treatment till the foliage is fully ripened; and as this method of culture forms a good imitation of their native climate, the bulbs will be thoroughly matured, and therefore will always flower in perfection.

If a brick pit, the chamber of which can be ventilated at pleasure, be not at command, the nearest imitation of it should be adopted, paying especial attention to its thorough drainage.

ANDROSA'CE LANUGINO'SA.

WOOLLY-LEAVED ANDROSACE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of Himalaya.	Height. 6 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1840.?

No. 1174.

The word Androsace is compounded from the two Greek words ANER and SARKOS, a man, and buckler; from the fancied resemblance of the leaf of the common species to an ancient buckler.

The specimen of this plant from which our drawing was made, was sent us by the late Mr. Cameron, who, we believe, received it from his friend Mackay of the Dublin Botanic Garden. In this garden it was raised from seeds transmitted by Dr. Royle from the Himalayan Mountains,—mountains exceeding in vastness—in immensity of height, all others on the face of the earth, beautifully alluded to by Bishop Heber as "the steps to God's eternal temple." On the sides of this mountain belt of Hindoostan, may be cultivated in succession all the vegetable productions of the world, from the riches of the tropics, to the stunted productions of the polar regions; around them, too, may Queen Victoria count a hundred millions of her subjects.

Androsace lanuginosa flowers admirably in the borders, in summer; but, notwithstanding it will bear severe frosts in its native country, it requires with us a little winter protection.

CONVOL'VULUS TRICOL'OR.

THREE-COLOURED BINDWEED.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CONVOLVULACEÆ.

Native of S. Europe.	Height. 3 feet.	Flowers in July, Aug.	Duration. Annual.	Introduced in 1629.

No. 1175.

From the Latin convolvo, to entwine, is derived Convolvulus. Three-coloured, is, in a general sense, correct, but varieties sometimes occur in which its colours are diffused into two; and, moreover, a white variety is not uncommon.

This is one amongst the prettiest old-fashioned annuals, and which still holds a place in the affections of many new-fashioned florists. There are certain old annuals, and perennials too, which are indispensable to our gardens, whatever other novelties may be introduced to gratify the fastidiousness of our novel-seeking nature. Meaner subjects, merely as novelties, sometimes flash many a joy across the mind, and life is the happier for the excitement; the triumph, however, is transitory, and then stern reason again assumes her sway. Shakspeare may here be allowed to throw in a gem of thought—

> "These violent delights have violent ends,
> And in their triumph die; like fire and powder,
> Which, as they kiss, consume."

Annuals have their cycles of favour, like colours in fashionable costume. Douglas's discoveries in North America, between the years 1824 and 1834 gave an unprecedented impulse to their culture, and many of our readers can, we are sure, look back with pleasure, and enjoy over again, much of the enthusiasm with which they first cultivated such plants as the Clarkias, Collinsias, Collomias, Œnotheras, Lupines, Leptosiphons, and others, which we owe to that indefatigable collector to the London Horticultural Society. We now have permitted tender or half-hardy perennials to engross whole beds in our gardens, and to mingle their beauties in the mixed borders, almost to the exclusion of annuals. One cause of this preference arises from the convenience with which young plants of perennials can be used at any time, to fill up blank spaces. The chief objection to this practice is that the lovers of flowers voluntarily relinquish much of the variety which is attainable at so little cost. Cultivate perennials, but also cultivate annuals. Cherish the beautiful of every class.

To assist our readers in using annuals, just as conveniently as perennials; in having them at hand to fill up blanks or beds whenever required, we will concisely mention a plan proposed, a few weeks ago, by Mr. Errington, in the Gardeners' Chronicle. Cut from a good sward, little squares of turf, three inches thick and four inches across; form in each, with a sharp knife, a bason-like hollow, about two inches and a half wide on the grassy side; dip these for a minute or two—a basket full at a time, in a furnace of boiling water, to destroy insects and vegetable life. Sow your seeds in these turf pots, and keep them in readiness for sinking into the beds or borders as required.

BER'BERIS ACTINACAN'THA.

RAY-SPINED BARBERRY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
BERBERIDACEÆ.

Native of Valparaiso.	Height. 4 feet.	Flowers in May, June.	Habit. Shrub.	Introduced in 1838.

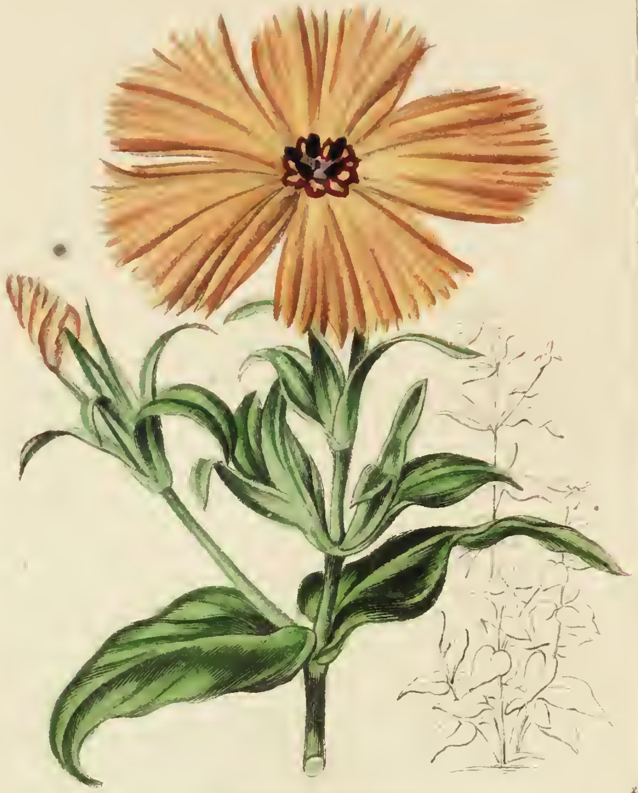
No. 1176.

Of the generic name, Berberis, very little is known, otherwise than that its use can be traced back to a very remote period amongst Eastern nations. The term actinacantha is adopted from the ray-like position of the spines.

Although this is a shrub of smaller growth than most of the Barberries, it will sometimes attain three or four feet in height, especially if assisted by a wall, which will not only encourage its growth, but will generally preserve it as an evergreen. It is a most abundant flowerer; and its flowers afford a pleasant fragrance, a quality that is always desirable in the garden.

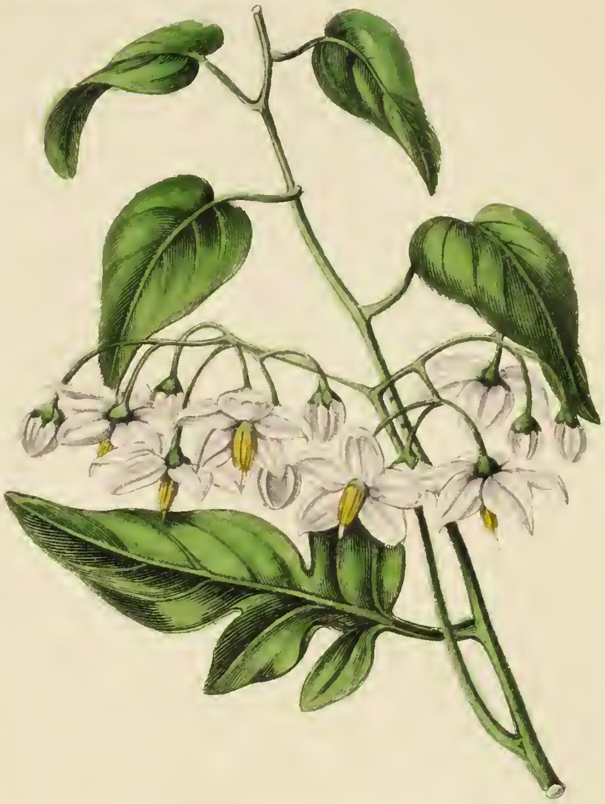
Although many of the newly-introduced Barberries produce fruit, none has been found to be so useful as that of the British species; and it should be known that some species when permitted to take their natural growth, as low spreading bushes, continue barren, but become fruitful on being trained as standards on single stems.

This shrub may be propagated by layers, suckers, or seed; suckers, however, are not so freely produced, as by most others of the Barberries.



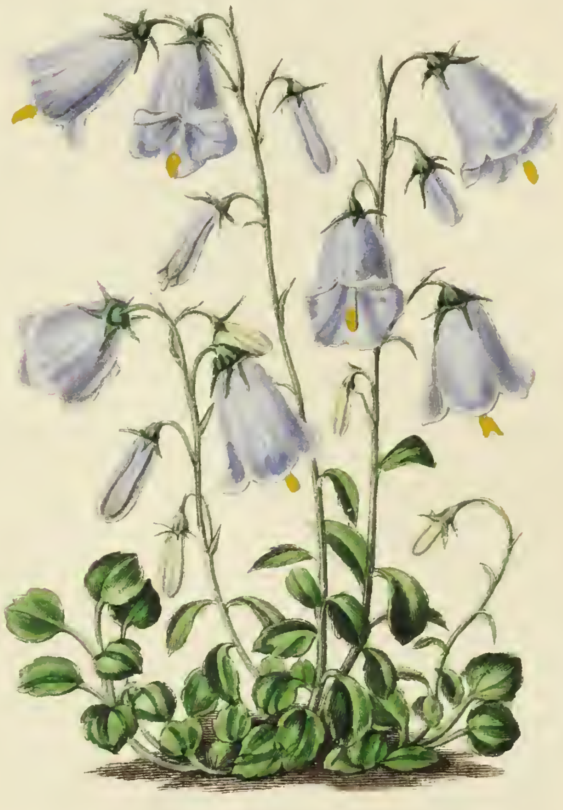
Lychnis Bungeana.

2/3

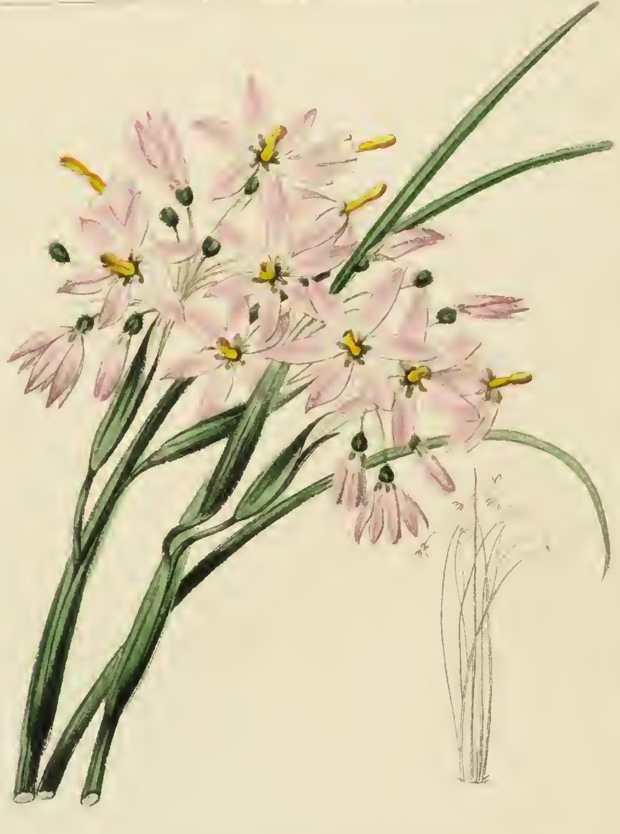


Solanum jasminoides.

2/3



Campanula cæspitosa.



Sisyrinchium junceum.

LYCH'NIS BUNGEA'NA.

BUNGE'S LYCHNIS.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CARYOPHYLLACEÆ.

Native of Russia.	Height. 2 feet.	Flowers in August.	Duration. Perennial.	Introduced in 1835.

No. 1177.

Very little doubt is entertained by botanical writers regarding the word Lychnis having been deduced from the Greek LYCHNOS, a lamp ; but whether the name was adopted from the plant having been used to make wicks, or whether the inflated calyx of the plant was thought to resemble a lamp or lantern, is a problem now difficult to solve.

The Lychnis Bungeana was first received in England from Dr. Fischer of the Imperial Gardens, St. Petersburgh; by whom it was named Bungeana, after Dr. Bunge, who accompanied Ledebour, in his researches through the Altai Mountains.

Propagation from seed having been practised by persons desirous of increasing this showy Lychnis, its flowers prove to be somewhat variable, as will be seen by our present figure, when compared with the brighter coloured, more laciniated, petals that are produced by some plants ; still its essential characters remain the same. It is showy in the open garden, and it is well worth the attention of cultivators to obtain strong plants. As this, like many others, succeeds best by being annually removed, the best mode of cultivation is to plant it in the borders in

May, in a rather cool situation; and in September pot it in light compost, and keep it in a cold frame during winter. Although a Russian plant, it rarely would bear full exposure through our winters.

We are insensibly led to expect that all Russian plants are hardy, but on examining the immense extent of the Russian empire we find portions thereof warmer than any part of England. Indeed, this may reasonably be expected, seeing that its vast territory extends from forty degrees of north latitude, to almost the north pole. Its warmer regions equal that of Italy and the south of France, but it is not this alone that influences the habits of their plants, for unlike Great Britain, with its perpetual alternations—its heat and cold, mingled like the constituent portions of granite—here a glossy bit and there a dull one; unlike this, even Russia, in its milder portions, scarcely knows spring and autumn; whilst in the colder regions these intermediate seasons can scarcely be said to exist. The transition from summer to winter is abrupt and sudden, snow commences, and the earth is covered till the great change to summer again comes round, which, about Moscow, as stated by Tooke, in his View of the Russian Empire, takes place at the end of April; "Then the rivers, covered a yard in thickness with ice, break up at once, and overflow their banks to a great extent; in a fortnight the snow has disappeared, the rotten-like blocks of ice are dissolved, and the rivers are confined to their limits. A crackling from the bursting of the buds is heard in the birch forests; in two days afterwards they are in leaf"

SOLA'NUM JASMINOI'DES.

JASMINE-LEAVED BITTER-SWEET.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
SOLANACEÆ.

Native of America.	Height. 15 feet.	Flowers in September.	Duration. Perennial.	Introduced in 1836 ?

No. 1178.

The Latin word solor, to comfort, or assuage pain, is believed to be the source whence Solanum was originally derived. This word seems to have been used by the ancient Latins, for Pliny, in the twenty-first book of his Natural History, employs it in noticing one of our solanaceous plants, probably the Atropa belladonna. He says "the Greeks made good sport with this plant, which they call Strychnos, (the Latins, Solanum,) and state that if a dram of the juice be administered to any one, he would have strange fantasies and delusions in his dreams; double this dose would make him go beside himself, and a little more would be fatal." The statements transmitted to us from the early Greek herbalists are very extraordinary. In some instances, we may not be competent judges of their truth, inasmuch as plants grown under the influence of different climates, possess qualities varying greatly in their potency; we cannot, however, resist the conviction, that excessive exaggerations occur in many of the statements drawn from the ancient herbalists.

As regards the qualities of the plants in Solanaceæ, they are more variable than in any other natural order, and scarcely bear out the theory of modern botanists, that every plant contained in one order, is uniform alike in structure and sensible qualities. Here we have the Henbane, Deadly Nightshade, and Tobacco, conformable in structure with the wholesome Tomato and Potato; it is, however, true that the leaves and berries of the Potato possess narcotic qualities, notwithstanding its having wholesome tubers. The succulent underground stems of some other plants, also of dangerous families, are found to be perfectly innocuous. The Acocantha, one of this order, growing at the Cape of Good Hope, is said to possess the most virulent qualities of any of its congeners. Of the bark of this shrub the Hottentots make a decoction, which, being evaporated to a glutinous consistence, is employed to envenom arrows, lances, and other war-like weapons. Wild beasts are also destroyed by laying baits for them, enclosing portions of this poison.

The Solanum jasminoides has a climbing habit, resembling a Jasmine, whence its specific name; and thereby it becomes the more valuable, on account of our scarcity of ornamental climbers; being an evergreen too, renders it still the more desirable. Its leaves are singularly variable, some being quite entire, others pinnatifid, whilst others are ternate, or divided into threes. Dr. Lindley thinks it may be only a variety of Solanum Seaforthianum; be this as it may, it has proved a most desirable climber, for training on a wall in a good aspect; or for cultivation in the greenhouse. It remains very long in flower, in autumn, and may be rapidly propagated by cuttings.

CAMPAN'ULA CÆSPITO'SA.

TUFTED BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of Austria.	Height. 5 inches.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1819.

No. 1179.

The derivation of Campanula has been noticed.

We have few plants which present us with more prominent evidence of the diversity of individuals in a single family than occurs in Campanula. Nearly two hundred of these are known and described,—about nine-tenths of them blue; every one bearing a permanent specific difference from all others, whose difference is truly transmitted from generation to generation, whilst, at the same time, the whole possess certain permanent characteristics in common. He who takes a survey of these, may catch a glimpse of the infinite power and wisdom employed in the arrangement of these gems of the earth.

Will the reader permit us to point to one tiny flower, resembling that now figured, and found on almost every road-side bank, hanging out its little bells, to remind him of the facts just stated. It merits a passing thought.

Campanula cæspitosa is certainly distinct from pumila, No. 48. Comparison of our engravings will show this. It is a hardy and very desirable border plant.

SISYRIN'CHIUM JUN'CEUM

RUSH-LIKE SISYRINCHIUM.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Native of Chili.	Height. 18 inches	Flowers in March.	Duration. Perennial.	Introduced in 1832.

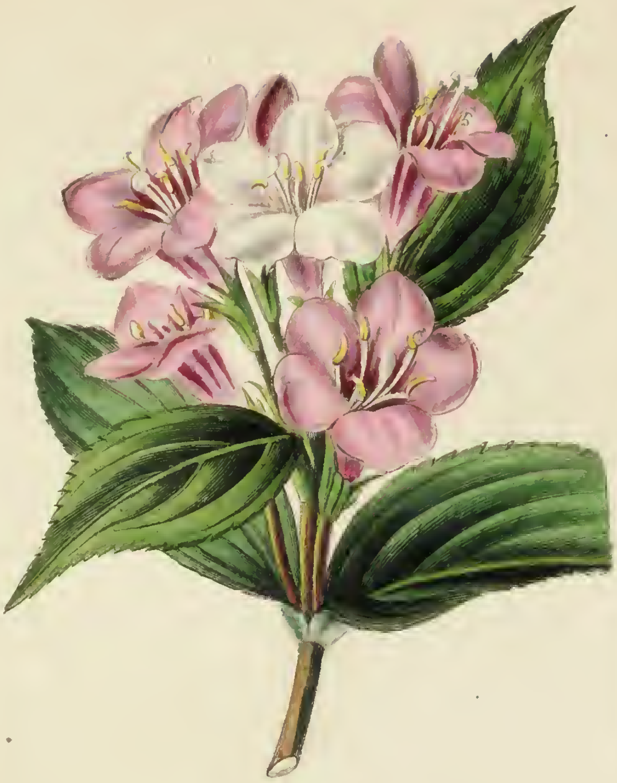
No. 1180.

The name Sisyrinchium, meaning pig's snout, like many others adopted from the ancient botanists, cannot now be traced to the plant to which it was originally given; its application is, therefore, uncertain. See No. 579.

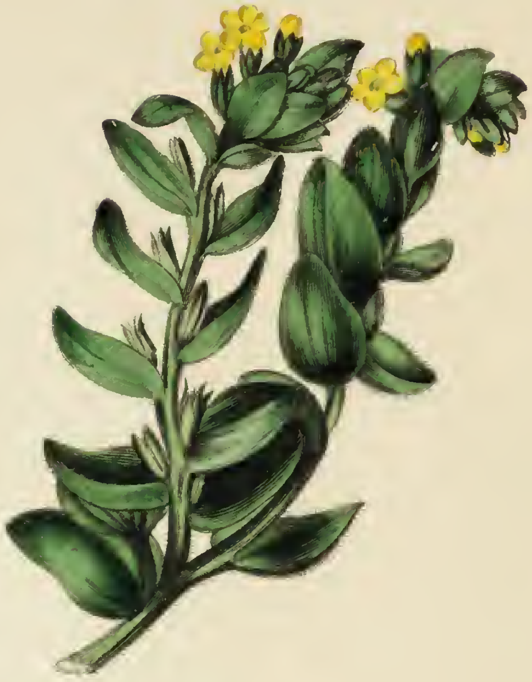
The species of Sisyrinchium, of which we now give a figure, is wholly different from all others, and especially from those which have been previously engraved. Its flowers possess great delicacy and beauty, and also the advantage of continuing very long in perfection. Healthy plants will produce their flowers for about two months.

This plant was discovered in Chili, by Mr. Cuming, and was raised from seeds in the Birmingham Horticultural Society's Garden. It most nearly resembles Sisyrinchium grandiflorum; but, as stated by Messrs. Knowles and Westcott, possesses some disparities, in comparison with the genus, having stipes from the spathes, and scales at the base of the flowers.

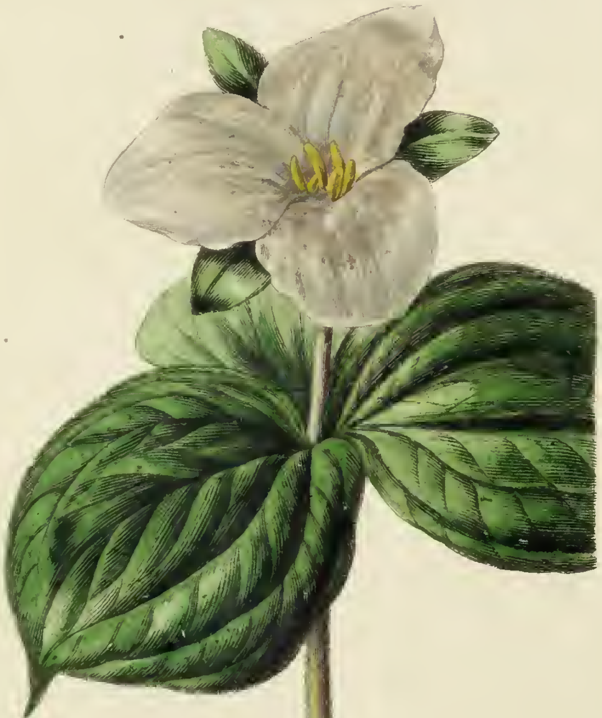
In cultivation this plant flourishes in peat and loam, and may, the most conveniently, be kept in a pot, and be plunged in the borders, in summer; and in autumn, be removed to a cold frame.



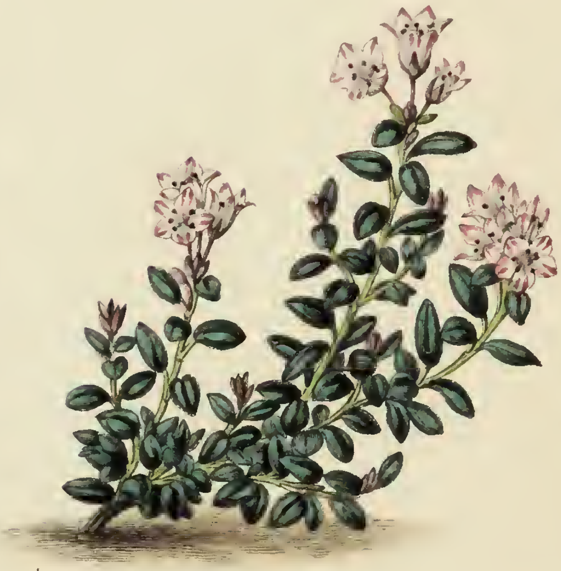
Wigelia rosea. 2/3



Lithospermum orientalis.



Trillium erectum. 1/2



Azalea procumbens.

WEIGE'LA RO'SEA.

ROSE-COLOURED WEIGELA.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
CAPRIFOLIACEÆ.

Native of China.	Height. 5 feet.	Flowers in April, May.	Habit. Shrub.	Introduced in 1845.

No. 1187.

Weigela was first adopted by Thunberg, and harsh as some of our botanical names may appear, they would not be improved by borrowing titles from the celestial empire. The Chinese call this plant Noak-chok-whoa.

We have, not unfrequently, had occasion to refer to the obligations which all who value the luxuries of a garden, owe to the London Horticultural Society. In the spring of 1843, the Society sent out Robert Fortune to China, to collect plants; and although nothing has been obtained to excite such wonderment, as at first was anticipated, still some excellent plants have been added to our collections. That now under consideration,—the Weigela rosea, is amongst the most valuable of the floral acquisitions; the more especially as it proves to be hardy, and will, consequently, extend the enjoyment, arising from its possession, to thousands; whilst had it been a plant of the hot-house, it would have afforded gratification to units only. This shrub, a native of the north of China, was first met with by Fortune, in the garden of a mandarin, near the city of Tinghae, in the island of Chusan; where, says Fortune, "it was loaded with its noble rose-coloured flowers, and was the admiration of all who saw it, both English and Chinese." This island is said to be far more healthy and beautiful than Hong Kong, which was chosen by the British as the spot whereon, amongst other novelties to its inhabitants, to plant the British flag. Fortune, in his "Wanderings," says "Chusan, in spring, is one of the most beautiful islands in the world. It reminds the Englishman of his own native land. In the mornings the grass sparkles with dew, the air is cool and refreshing, the birds are singing in every bush, and flowers are hanging in graceful festoons from the trees and hedges."

The Weigela rosea, as well as ranking amongst our most valuable out-of-door shrubs, is an admirable subject for early forcing, to take a place with the Azaleas and Rhododendrons, as decorations of the conservatory. For this purpose, however, it will be desirable to retain it in a pot, that it may bloom soon, and not become too large. Thus treated, by its roots being restricted, it is not only kept to a smaller size, but its wood becomes better ripened, and its flowering thereby more abundant, in the succeeding season.

Cultivated as a hardy shrub, we would advise, that it have a sheltered situation, and where convenient, that it be trained to a wall, where it proves to be exceedingly ornamental; and not the less so from the peculiarity of its flowers changing colour, as is shown in our plate. It grows very freely in any good garden soil; and cuttings of the young shoots strike root readily under a hand-glass, without the application of heat

LITHOSPER'MUM ORIENTA'LIS.

ORIENTAL GROMWELL.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINACEÆ.

Native of Levant.	Height. 2 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1713.

No. 1182.

Lithospermum literally means stone-seed ; being derived from the Greek LITHOS, a stone ; SPERMA, a seed. Stone-seed would, perhaps, have been the best English name ; or, Pearl-seed, which, two or three centuries ago, was applied to it. The name Gromwell, however, was the old English title for the Lithospermum, and therefore retained, although its meaning has been lost. The French, according to Gerard, call it Gremill.

Lithospermum orientalis has small flowers, and, consequently, is not of showy character; but it continues to produce its little golden stars for many weeks, unfolding them progressively, at the summit of the plant, as it increases in height. As it is not desirable in the landscape that the whole view be seen at once, so in the flower garden, it is the more interesting that the beauty of some of its plants be reserved from view, till they are approached and examined.

This plant asks for no care, if it be placed in a light dry soil. In a very sandy peat bed we have seen it grow in great luxuriance. Increase may be obtained by division of its roots.

TRIL'LIUM ERECT'UM.

ERECT TRILLIUM.

Class.
HEXANDRIA.

Order.
TRIGYNIA.

Natural Order.
TRILLIACEÆ.

Native of N.America	Height. 1 foot.	Flowers in May.	Duration. Perennial.	Introduced in 1759.

No. 1183.

The name, Trillium, is happily enough deduced from trilix, tripple; in allusion to the treble or three-fold formation of the plant, which is seen in those parts that are evident to the common observer; as well as others, chiefly noticed by the botanist. The stem has three leaves, the corolla three petals, the calyx three sepals, the pistil three styles, and the fruit three cells. Miller called Trillium the American Herb-Paris; but, although there is a little resemblance, in their general character, it would be productive of confusion to continue such title.

A variety of Trillium erectum was made known, many years ago, which differed in its general appearance from the present plant. This variation, however, was chiefly occasioned by its more narrow acuminate petals, its botanical characters being identical with the one we now publish.

Trilliums are rarely seen in our gardens, although they are very attractive hardy plants, and flower early in the season, when their presence is the most acceptable. They are unsuitable, however, for planting in the general flower border; they soon decline in health, if not placed under circumstances somewhat analagous to those which nature has assigned them; that is, in bog earth and moisture. These are, of course, naturally found together, and the plants which inhabit moist peat are generally unsuitable for cultivation in other soil, even if it be kept moist, nor in this soil, if it be kept dry. This latter case is well elucidated by an example which may be sometimes met with in farming. In swampy peat meadows, which yield a fair amount of coarse grass, the farmer, to improve the land, drains it thoroughly; the consequence is, that nearly the whole of his former stock of grasses dies. They were of species intended by their Maker for growth in such a situation; and the farmer finds his drained land almost a barren plain, till he has cultivated it, and sown seeds suitable to the altered circumstances of the soil; or has left it, for years, to its fate, as unproductive and useless, till nature herself, and adventitious circumstances, gradually spread over it the seed of other grasses, suitable to properly dried land. The seeds that are always mixed with the earth, are sometimes the careless cultivator's reliance; but in peat marshes there are few of these, unless such marshes have been, at times, overflowed with water, which frequently carries with it abundance of seeds, and distributes them indiscriminately. In due time, those near the surface vegetate; and, if the situation be suitable to the plant, it flourishes, and rapidly increases, by the distribution of its own seeds around it. Thus continues the earth's fertility.

Trillium erectum should be planted in a bed of peat, in a moist situation; or, it may be kept as a pot plant with the alpines.

AZA'LEA PROCUM'BENS.

TRAILING AZALEA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICACEÆ.

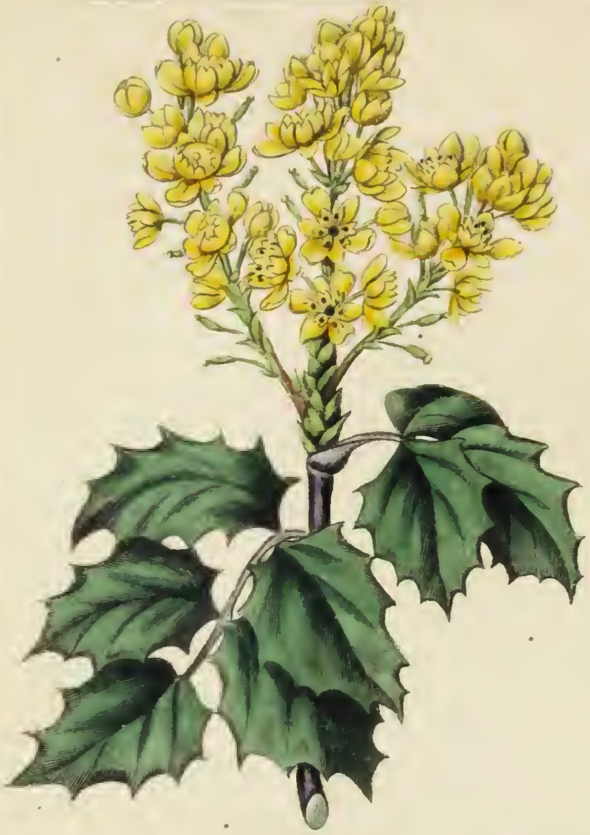
Native of	Height.	Flowers in	Habit.	Inhabits
Britain.	6 inches	April, May.	Shrub.	Mountains.

No. 1184.

The ancient name Azaleos, which alludes to an arid dry situation, was, doubtless, given by the Greeks to a plant which inhabited such a situation. Linneus founded the genus on this very species, and adopted this name, not inappropriately, since the plant is found only on the summits of mountains.

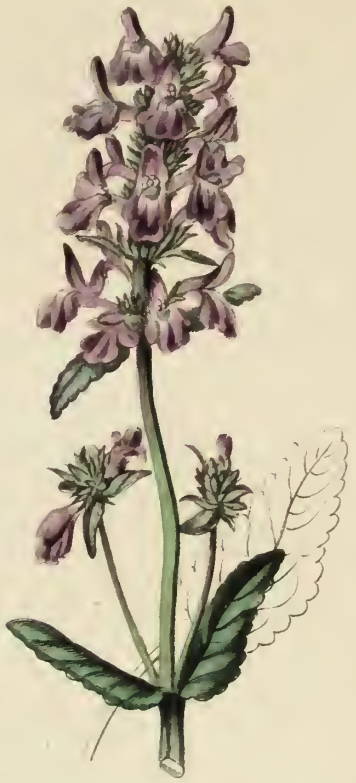
The beautiful Azaleas of our gardens are, by modern botanists, incorporated with Rhododendron; and it must be admitted that this arrangement seems to be indispensable, inasmuch as from the numerous hybrids that have of late been raised between the two, it would be impossible to draw any definite line of distinction. The number of their stamens was their original chief distinction, and even this difference has been destroyed. Thus, the present little plant is left sole occupant of the name Azalea.

This plant succeeds best in peat soil, on rock-work; and here, too, it is in character with its situation. Although so fully exposed, on its native mountain, on artificial rock-work it should be planted against the northern side of a stone, one that does not retain moisture.



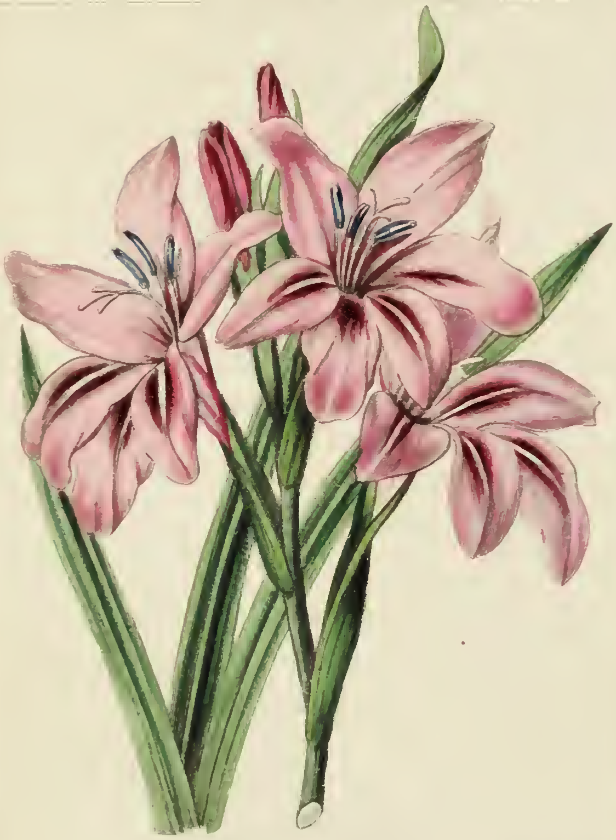
Berberis repens.

2/2



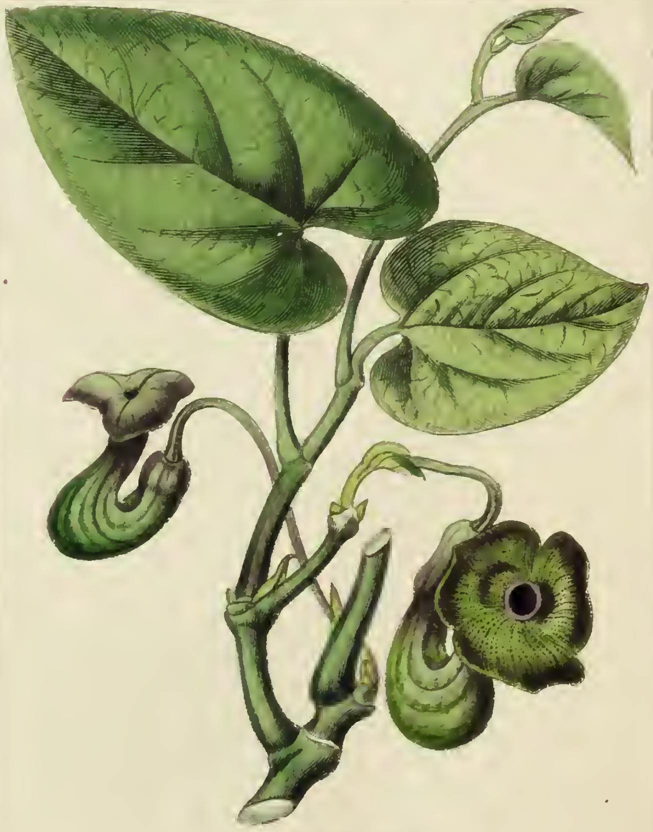
Betonica serotina.

2/3



Gladiolus ramosus.

2/3



Aristolochia sipho.

3/4

BER'BERIS RE'PENS.

CREEPING BARBERRY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
BERBERIDACEÆ.

Native of N. America	Height. 2 feet.	Flowers in June to Aug.	Habit. Shrub.	Introduced in 1824.

No. 1185.

Berberis, an old name for a wild berry.

We have, more than once or twice, solicited attention to this most interesting genus of shrubs; none, of late years, has so much increased in importance.

It should be observed that we include with Berberis, what are sometimes called Mahonias, their distinction resting on a foundation too trivial to be adopted; indeed, the real circumstances connected with the leaves of those species called Mahonia, seem to have been overlooked. The so-called Mahonia is observed to have compound leaves, as depicted in our figure, whilst the Berberis has leaves which are simple, like the common fruiting one of our gardens, but the lamina or expanded portion is articulated or jointed with the petiole, indicating its nature to be that of a compound leaf; and as such it is by botanists esteemed. A case in point occurs in the Floral Register of the present number, (figure 2818) where Jasminum gracile has a simple leaf, but it is not on such account separated from the Jasminums with compound leaves. Here, too, the simple leaf has the indication that it is but a slight departure from the compound, by the presence of a joint in the leaf stalk, where nature had provided for the issue of other leaves, and where, in fact, two other leaves have in some such instances been occasionally produced. Such then, when fully comprehended, are the beautiful arrangements of nature in all her works. Human eyes penetrate but a slight depth into her doings, and not unfrequently are we led to conclusions, which subsequent experience shows to be inconsistent with truth.

Berberis repens is a native of the north-western part of North America, where it was originally found by the party accompanying Captains Lewis and Clarke in their expedition across the continent of America. From seeds, procured on that occasion, plants were raised in America, which have lately, says Dr. Lindley, (1828) been sold into Europe, at the rate of twenty-five dollars each. One of these were purchased by the London Horticultural Society, from an American nurseryman, whence was derived the stock of it now in England.

The name, repens, seems to have been suggested by its creeping at the root, a habit which is uncommon to Barberries, and by which it may be increased, but not with much rapidity; this, however, is of little importance, for it ripens seeds very freely, and from these it may be freely multiplied. The seeds should be sown in a cold frame, as soon as they are ripe, and they will vegetate in spring, and require but common care. Amongst such seedling plants improved varieties may reasonably be expected, as we shall hereafter show; indeed, we would repeat what we have frequently urged on our readers, —when possible, PROPAGATE FROM SEEDS.

BETO'NICA SERO'TINA.

LATE-FLOWERING BETONICA.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of Austria.	Height. 18 inches.	Flowers in August.	Duration. Perennial.	Introduced in 1832.

No. 1186.

The generic name, Betonica, seems to have been a corruption of Vettonica, which, according to Pliny, in the twenty-fifth book of his Natural History, was an appellation employed in France, for a herb of many virtues.

Modern botanists, on a revisal of the order Labiatæ, have found it advisable to distribute all the species of Betonica amongst other genera, and the greater portion of them, as left by Linneus and more recent authors, are transferred to Stachys. These, it is true, are inconveniences, but they are not the fruits of mere caprice; they originate from the discovery of new plants, possessing intermediate or new combinations of character, which cannot be botanically located, but by a revisal of the existing definitions of vegetable families. We notice this revision, but employ the name established in gardens.

Betonica serotina, when first introduced from Austria, soon became a much esteemed hardy plant, for border culture, requiring no peculiar attention, and continuing long in flower. If its stems be cut down before it has done flowering, a second crop will be produced.

GLADI'OLUS RAMO'SUS.

BRANCHING CORN FLAG.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Hybrid Origin.	Height. 2 feet.	Flowers in August.	Duration. Perennial.	Cultivated in 1844.

No. 1187.

The present fine variety, like the two preceding, which we have lately published, was furnished from the extensive collection of John Willmore, Esq., of Oldford; and we have selected it for the purpose of introducing the consideration of another section of this family of splendid plants, as classified by Mr. Cole, and which we explained, under No. 1133. It will at once be perceived that the successful results in raising these fine plants have been wholly dependent on hybridisation. This, most of our readers are well aware, is the inoculation, as it is usually called, of one plant by another. We may just notice, for the information of the uninitiated, that to effect such purpose, the gardener conveys the pollen or powdery matter of one flower, to the stigma or summit of the pistil, which is the prolonged part of the seed-vessel, of another flower. The seed produced from such inoculated seed-vessel may be expected to produce a plant, partaking of some of the characters of each of those so employed. This, however, is a game of hazard, for, although, we are allowed the privilege of employing means to effect improvements in natural productions, these changes are bounded by certain limits, respecting the laws of which we are almost as ignorant as of the original creation of the plants themselves. Hybridisation sometimes occurs spontaneously amongst plants, by the pollen being carried by insects or the air, as if to show man what he may accomplish.

Gladiolus ramosus is a hybrid from floribundus, with some of the more tender species, of which Mr. Willmore has now in bloom about forty seedlings, all more or less resembling that now figured. It appears to be exceedingly desirable to obtain hybrids between this and Gandavensis, which hybrids may possibly be united with some of the Cardinalis section, although all attempts hitherto, as far as we have been informed, to unite Gandavensis and Cardinalis have failed; a fact which was long ago stated by the late Hon. and Rev. W. Herbert, whose researches in these matters, have surpassed those of all his contemporaries. This desirable object need not, however, be despaired of, for although it may be impracticable to unite Gandavensis and Cardinalis with each other directly, they may, probably be united indirectly, through the intervention of a third species, and thus the more hardy species, may acquire the colours and qualities of the tender; or the high coloured tender ones, acquire the hardness that would render them still more valuable. Here is ample scope for the intelligent gardener and florist, and, we doubt not their industry in carrying out those advancements in culture, which are so evidently intended by the Almighty to be executed by man, to whom he has assigned rational powers for the purpose.

ARISTOLO'CHIA SI'PHO.

TUBE BIRTHWORT.

Class.
GYNANDRIA.

Order.
HEXANDRIA.

Natural Order.
ARISTOLOCHIACEÆ.

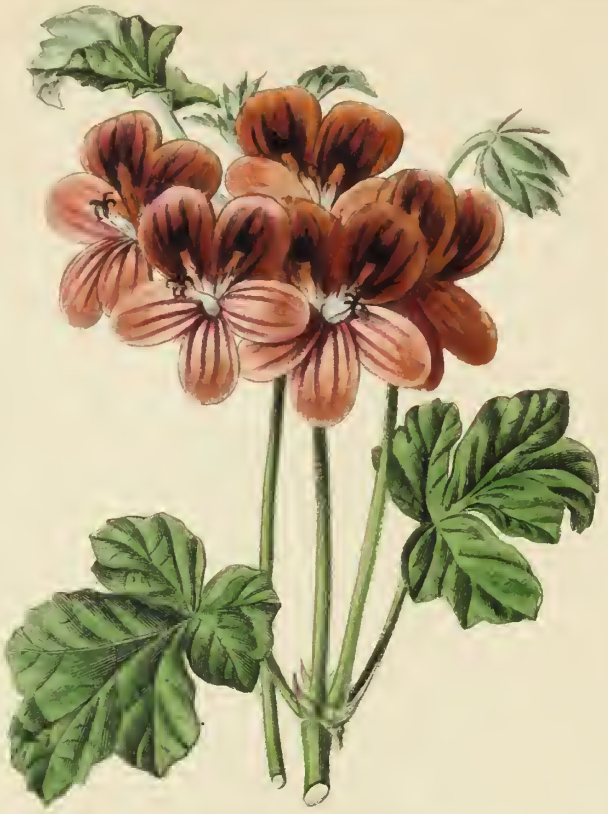
Native of N.America	Height. 30 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1763.

No. 1188.

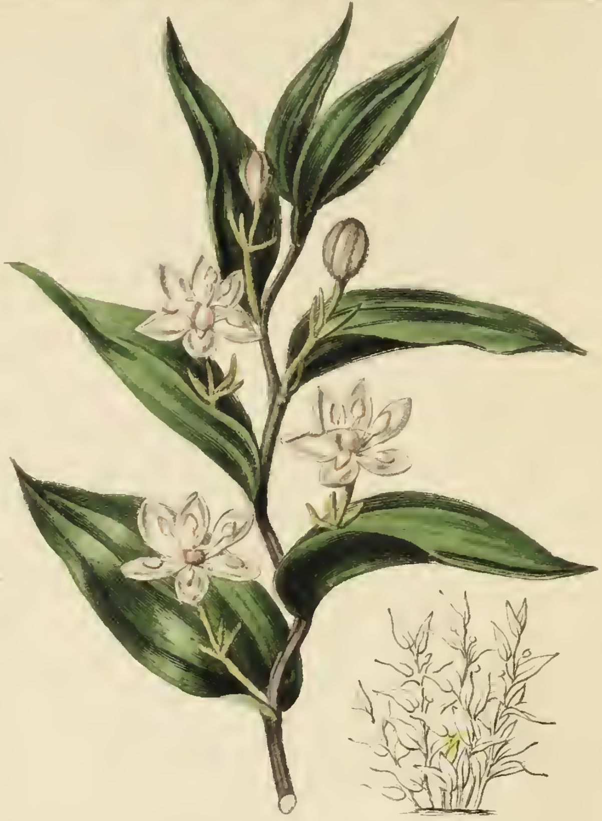
The name, Aristolochia, has descended to us from the ancient Greeks of two thousand years ago; and, probably, was applied to one of the species now distinguished by the same appellation. The Greek word has allusion to its medicinal virtues, especially in childbirth. Most of the species of Aristolochia are esteemed, in the present day, as possessing active qualities; generally, they are stimulant and sudorific, and some one or other of them may be found in each quarter of the globe.

The Aristolochia Sipho is quite hardy; the plant of it which we first met with, grew about fifteen feet high, against the residence of Mr. J. Maund, surgeon, of Harlow, Essex, and was drawn, with great accuracy by his sister. Its foliage is fine, but its very curious siphon-like flowers, few. In its native country, on the Alleghany Mountains, it is said to climb to the summits of the loftiest trees, spreading its fine heart-shaped foliage in great luxuriance. Were it but evergreen, it would be one of our most valuable trellis plants.

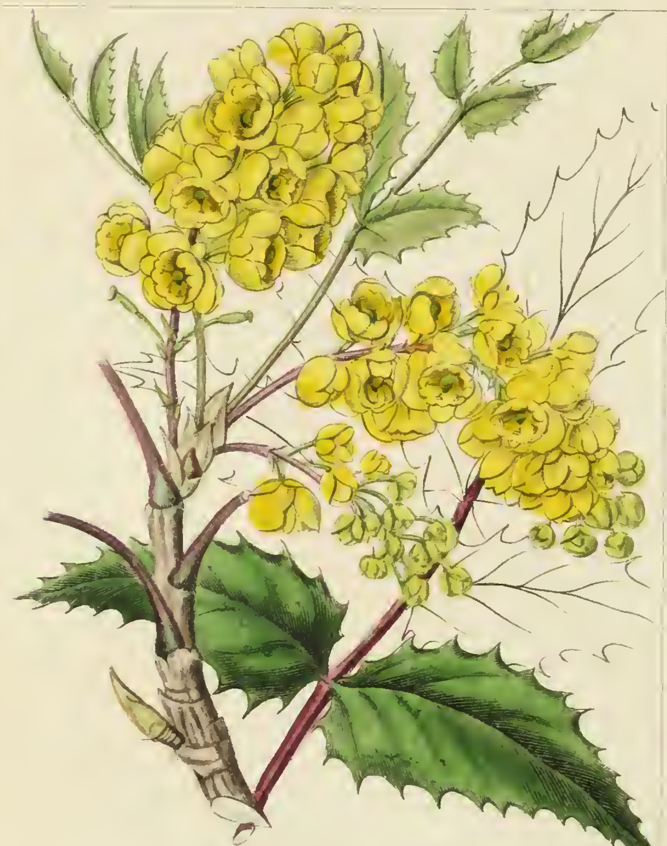
It may be increased from suckers, or the roots of old plants may be divided for such purpose.



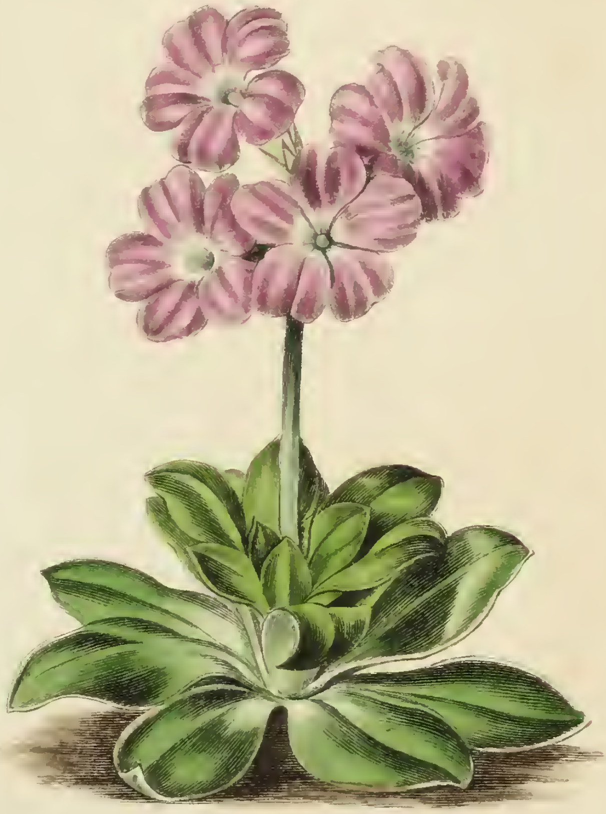
Pelargonium quercifolium.



Schelhammera multiflora.



Berberis repens.



Primula integrifolia.

PELARGO'NIUM QUERCIFO'LIUM.

Var. coccinea,

RED OAK-LEAVED STORK'S BILL.

Class.
MONADELPHIA.

Order.
HEPTANDRIA.

Natural Order.
GERANIACEÆ.

Garden variety.	Height. 1 foot.	Flowers June to Aug.	Duration. Perennial.	Cultivated in 1840.

No. 1189.

Under Pelargonium tricolor, No. 1158, lately published, we have explained the origin of the words Pelargonium, Geranium, and Erodium; the three genera which have been formed out of the Geraniums of Linneus.

This is a hybrid from the old, and we may say, favourite, Oak-leaved Pelargonium of our forefathers, its parent having been a resident of England more than seventy years ago. Although neither this nor its immediate progenitors, have hitherto ranked amongst the 'exhibition nobility' of its race, a 'caste' if we may be allowed the expression, is now rising into note, amongst which it will take no mean place —we mean the Fancy Pelargoniums. Its colour will here be found valuable.

In this place it is introduced chiefly as a window plant, for which purpose it is most valuable, chiefly on account of its almost perpetual flowering habit. Of window plants that give us their beauty in spring, and the early part of summer, we have abundance; but we want autumn and winter flowerers, and here we shall give that course of management of the plant now published which will insure such advantage.

To obtain the production of autumn and winter flowers by the Oak-leaved Pelargonium, its branches should be cut back in June; and in the performance of this operation the amateur cultivator should use the knife freely. This being done, the plants should be placed in a dry situation, till they break, that is, till young shoots are again produced. Now, the plants having again made a start in their growth, they must be taken from the pots, the soil gently shaken from their roots, the longest of which will require to be shortened a little, and then all should be repotted in a compost of turfy loam, leaf mould, and a little sand, the proportions of which should be varied, according to the qualities of each. As a general rule, four parts of loam, two of leaf mould, and one of sand, will form an excellent compost; and as regards more active stimulants, they may be supplied by the addition of rotten hotbed manure, or more efficiently by using liquid manures, when the plants are in active growth. Of the component parts of this compost, and its requisite proportions, we shall take an early opportunity of treating at length. The plants being potted, as above directed, they must be plunged to the rim, in an open part of the garden, where they will require occasional waterings, to keep them in regular growth, whilst in the open air.

In the first week of September, plants treated as above, should be removed into the house, where they will require but little attention, further than a regular, but moderate, supply of water; and they will enliven the dreary months of winter with their blossoms, and afford to the attentive cultivator a continual anticipation of the pleasures of spring.

SCHELHAMME'RA MULTIFLO'RA.

MANY-FLOWERED SCHELHAMMERA.

Class.	*Order.*
HEXANDRIA.	MONOGYNIA.

Natural Order.
MELANTHACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.Holland.	18 inches.	September.	Perennial.	in 1824.

No. 1190.

The name, Schelhammera, was adopted by Robert Brown, to distinguish this species of New Holland plant, after Schelhammer, professor of medicine successively at Helmstadt, Jena, and Kiel. He was the first to explain some peculiarities in the germination of Palm seeds.

We are not enabled to point out the medicinal qualities of the plant now figured, it is, however, associated with very dangerous company; for the natural order Melanthaceæ contains, besides Schelhammera, such plants as Meadow Saffron, White Hellebore, and others of similar poisonous properties; and it is held by some botanists, that all plants belonging to the same natural order, possess similar qualities. Without admitting this theory to its full extent, it may reasonably be admitted, that the greater portion of those combined in one order, do possess some properties in common.

In the warmest parts of England this plant would, probably, bear full exposure; but in the midland and northern counties it requires frame protection. It may be flowered in the borders, in summer, and be taken up and potted at Michaelmas.

BER'BERIS RE'PENS-FASCICULA'RIS.

FASCICLED CREEPING BARBERRY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
BERBERIDACEÆ.

Garden variety.	Height. 2 feet.	Flowers in June to Aug.	Habit. Shrub.	Raised in 1840.

No. 1191.

The meaning of Berberis, as far as it is known, has been lately noticed.

To this exceedingly showy variety of Barberry we were introduced by Mr. Rivers, in his nursery, at Sawbridgeworth; and to whose obliging attentions we are indebted for the specimens drawn from. Mr. Rivers discovered it amongst a quantity of seedling plants, and it is probable that the pollen of Fascicularis may have been conveyed by an insect to the flowers of Repens, from the seeds of which it originated. Of all that we have seen of this section of Berberis, it is, from its robust foliage, and abundant showy flowers, the most desirable.

This variety possesses much of the habit of Fascicularis, but has more robust foliage. It produces short unbranched suckers, and numerous terminal fascicled racemes of flowers, of rich yellow, very showy.

Increase may be obtained from suckers; and also from layers, but these do not emit roots readily. Seeds are not freely produced; but, probably, would be increased by the application of the pollen of Repens; and from such an intermixture of character, good varieties may be expected.

PRIM'ULA INTEGRIFO'LIA.

ENTIRE-LEAVED PRIMULA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

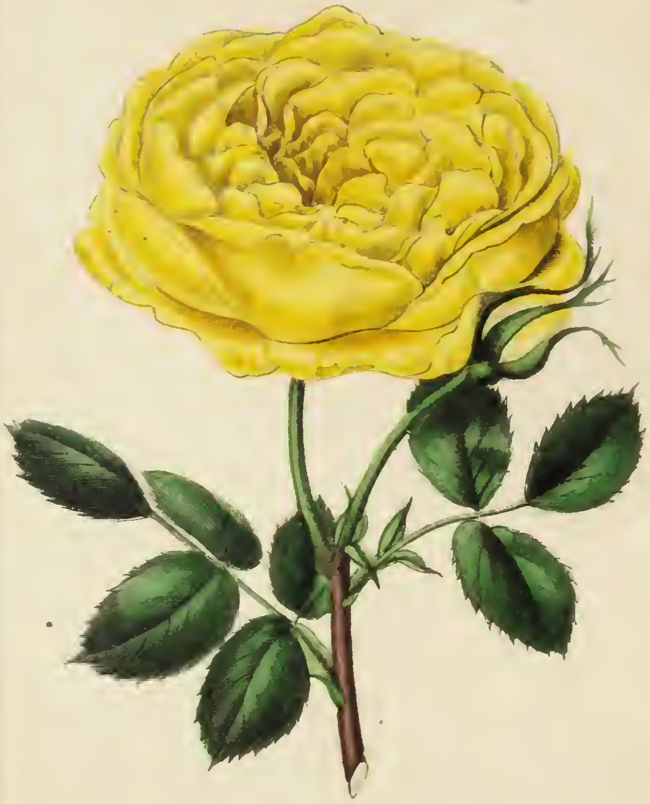
Native of Pyrenees.	Height. 4 inches.	Flowers in June, July.	Duration. Perennial.	Introduced in 1798.

No. 1192.

The systematic name, Primula; the English, Primrose; the French, Primèvere; the Italian, Prima-vera, have each of them a similar signification, in allusion to the Primrose being amongst the earliest of flowers.

The Entire-leaved Primrose was first introduced to this country by the elder Mr. Loddiges, who raised it from seeds which had been sent to him from Austria; and there are few of this interesting family less frequently met with. It has much resemblance to the Auricula; and, probably, between these species some curious varieties may be obtained. The various Primulas being, as they are, of character so different, offer a wide field for hybridisation.

Florists who cultivate the Auricula as a show flower, possess a section of it which they call 'selfs,' or 'alpines,' which have a one-coloured corolla, and with which Primula integrifolia would very well assort; and would succeed as regards its culture more successfully than by less negligent treatment; for, although this plant is a native of the Pyrenees, it does not bear border culture without care.


Rosa lutea.

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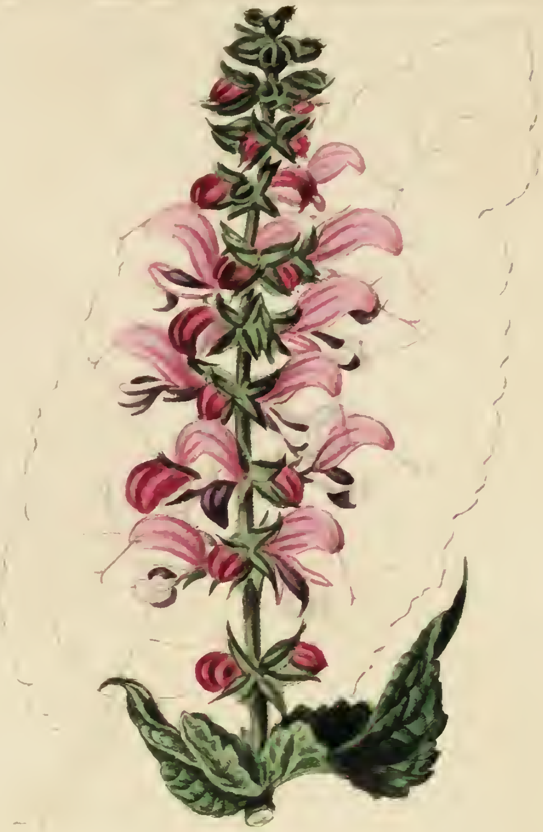
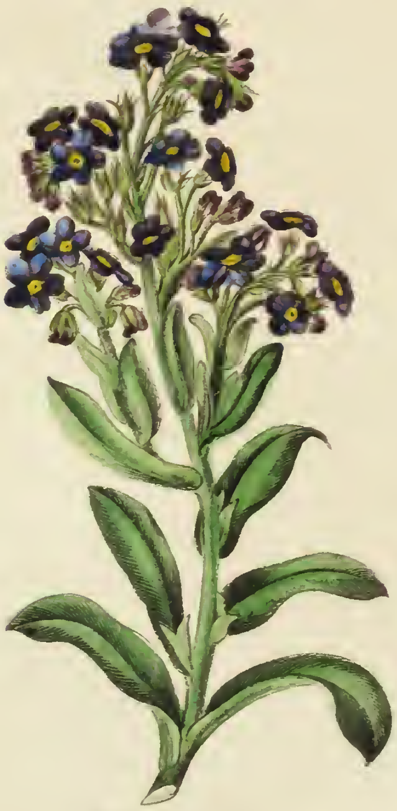
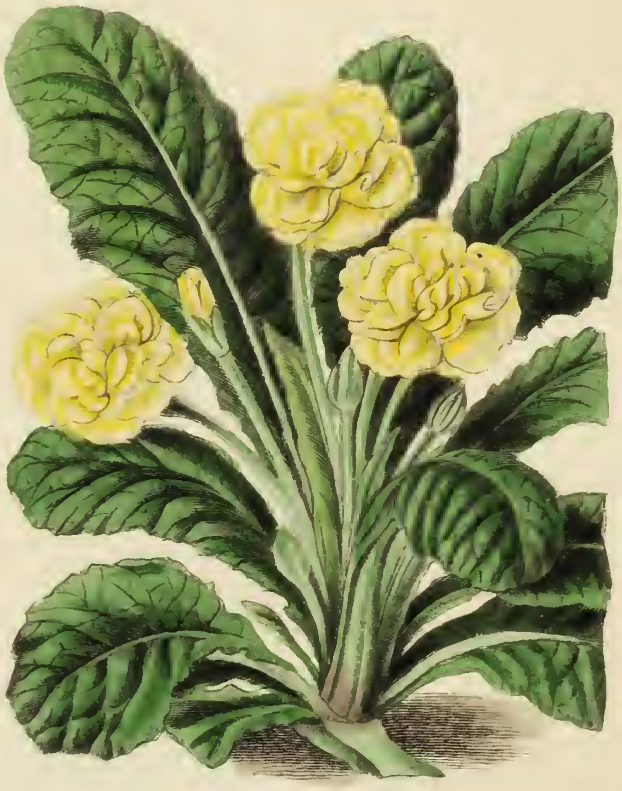

Salvia rugosa.


Myosotis Azoricus


Primula acaulis.

1/2

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RO'SA LU'TEA.

YELLOW PERSIAN ROSE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Persia.	5 feet.	June, Aug.	Shrub.	in 1837.

No. 1193.

For the derivation of the word Rosa, see No. 177.

The Rose, here figured, we are told by Mr. Paul, was introduced from Persia, in 1837, by Sir H. Willock, but we have no further particulars connected with its history. A yellow Rose, of fine form and colour, has long been desired, but we dare not say that in the Persian Rose are found all the qualities wished for. This Rose, however, is the nearest approach yet made towards the desired perfection. It is true that the old Rosa sulphurea—the double yellow of past generations, has, sometimes, produced flowers of superlative beauty; but a flower or two in a county, and that once in three or four years, has only been heard of. We confess to never having seen but a single specimen that was perfectly expanded, and this, indeed, was superlative. Harrisonii, another yellow, is a showy free-flowerer, but deficient of petals ; Williams's is still more so. The Austrian family, to which these belong, is comparatively very small, and offers a fair field to propagators for extension and improvement, seeing that all those of the China section, want intensity and permanence of colour.

The Persian Rose being now the most valuable of its class, it is matter of regret that it has proved so short-lived; at least when budded on the briar. In its second year from the bud its flowers are usually fine, after which it languors, and eventually leaves its place to be filled by another. This, however, we may hope, hereafter to remedy, for although short-lived when united to a stock of a species so different from itself as the briar, we need not despair of surmounting this difficulty. Grown on its own roots, in our climate, it succeeds to perfection, but the taste of the age demands something more, and stocks must be sought for it from a species more nearly allied to it than our own briar. This will be found in the Scotch Rose; and one of its varieties of robust habit, such as that known as the double white, should be tried. On this, too, should the Rosa sulphurea be budded, as an endeavour to correct its habitually imperfect expansion.

With these Persian and Austrian beauties, which pine life away when wedded to the rustics of our hedges, another method of culture may be tried. The double white Scotch, above mentioned, grows freely when budded on the briar; in this position, it may receive the Persian, and operate between them as the friendly bearer of wholesome stimulants from the one to the other. This experiment is also worthy of trial with the Rosa sulphurea, and if successful in its object, may render it worthy of a place in the rosaries of Persia, more distinguished, perhaps, than even the one assigned to its own brilliant offspring.

SAL'VIA RUGO'SA.

WRINKLE-LEAVED SAGE.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
LAMIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
C.G. Hope	2 feet.	July, Aug.	Perennial.	in 1775.

No. 1194.

The 'saving' or 'healing' plants, as their name implies, contained in the genus Salvia, are, it may fairly be presumed, subjects of much less attention, in a medicinal sense, than when Sage, as Parkinson says, was "much vsed among other good herbes to bee tund vp with Ale, which thereupon is termed Sage Ale, whereof many barrels full are made, and drunke;" which, he says, took place in the month of May, to conduce to the health of man's body.

Salvia rugosa does not vie in brilliancy of tint with Salvia cardinalis, fulgens, or splendens; but if far more modest in colouring, it is not the less pleasing in culture. It is of neat growth, and its flowers of shaded pink, varying in some plants to nearly white, are both abundant and lasting, not possessing the ephemeral character of some of our otherwise most desirable species. Although this plant will not tolerate complete neglect, still it demands but little care. Planted in a light soil, in a dry situation, it will flower abundantly, and bear the winter with more certainty if divided and removed into fresh earth in October, a practice which would save many of our delicate plants.

MYOSO'TIS AZO'RICA.

AZORES FORGET-ME-NOT.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINACEÆ.

Native of Azores.	Height. 4 inches.	Flowers in May, Aug.	Duration. Perennial.	Introduced in 1847.

No. 1195.

The generic name, Myosotis, is compounded from MUS, mouse ; and OTION, a little ear. This name has been used to distinguish several plants, whose leaves, from their shape or hairiness, bear resemblance to the object thereby indicated.

Several species of Myosotis are pleasing objects of cultivation, but the intensity of colour in the flowers of the newly-introduced Myosotis Azorica, far exceeds in brilliancy that of the flowers of all other species of this interesting genus. Its hardiness, and its power of bearing drought or moisture, have not been sufficiently proved to enable us to speak thereon with confidence; but it appears likely to be quite suitable either for "bedding," for the mixed parterre, or for cultivation in pots ; under the latter method of treatment, from the neatness of its growth, it would be exceedingly ornamental — a cabinet gem. Like other small herbaceous subjects, of similar habit, if it be required for covering entire beds, young plants should be propagated in the summer; and, by being protected during the winter, will be healthy, and well adapted for turning out in April or May.

PRIM'ULA ACAU'LIS,

Var. plena-sulphurea.

DOUBLE YELLOW PRIMROSE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Garden variety.	Height. 3 inches.	Flowers March, May.	Duration. Perennial.	Cultivated before 1596.

No. 1196.

The derivation of Primula is known to our readers.

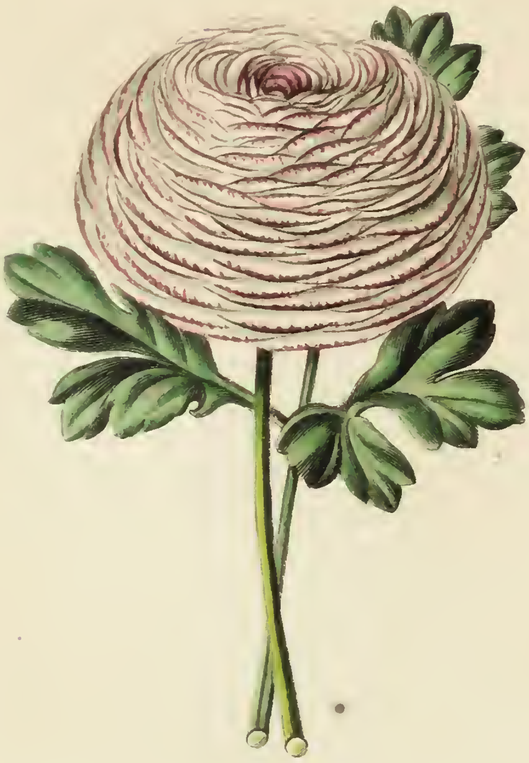
It has been observed that old-fashioned flowers are now in request; indeed, it does appear that many zealous florists are in search of the flowers of other days—of the days of Gerard and Parkinson, and such as graced the straight borders, and geometrical gardens, of learned merchants and physicians, whom Gerard so frequently and complimentarily names in his herbal. The late Dean of Manchester—the Hon. and Rev. W. Herbert, collected with much assiduity, the bulbs which are mentioned by the above authors, and many of them he rescued from obscurity.

A few persons have brought together a numerous collection of the varieties of Primrose, Cowslip, and the Polyanthus, and few there are who are aware of the singular montrosities that exist in this family, several of which are clearly described by Parkinson, in his Paradisus Terrestris.

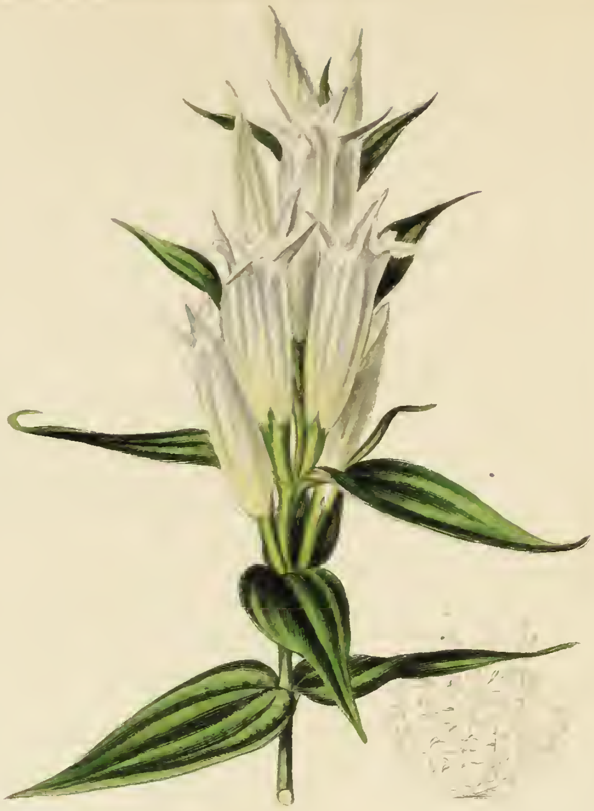
The very flower, which we now figure, was known to Parkinson, and a wood-cut of it occurs in the work just mentioned. In those days, two hundred and twenty years ago, printing was not executed with great precision, and here an error in the reference numbers occurs. In the description, No. 6, which should be numbered 5, conformably with the cut, he says " The leaues of this Primrose are very large, and like vnto the single kind, but somewhat larger, because it groweth in gardens: the flowers doe stand euery one seuerally vpon slender long footestalkes, as the single kinde doth, in greenish huskes of a pale yellow colour, like vnto the field Primrose, but very thicke and double, and of the same sweete sent with them."

The double yellow Primrose is less hardy, and, consequently, less common than the double white; although, in some gardens, it flourishes without much attention. The double crimson is still more tender than the yellow, whilst the double lilac flourishes with less care than even the single yellow from the hedge banks, and, consequently is abundant in our cottage gardens.

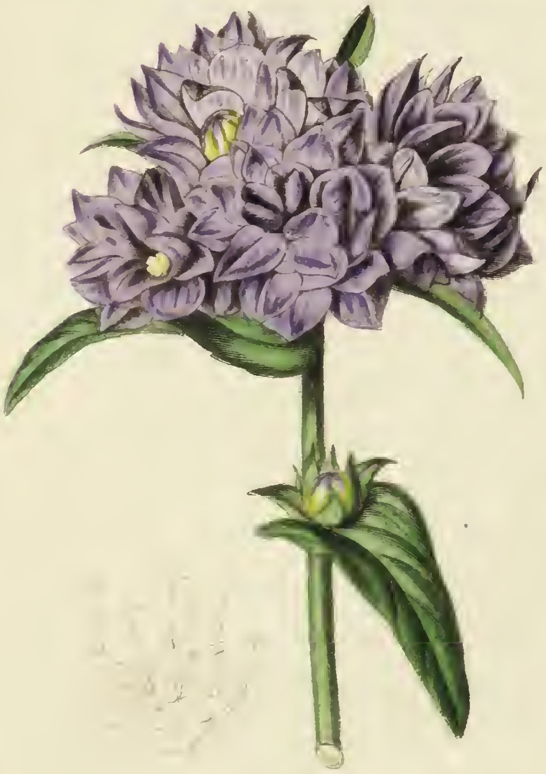
The prevailing error in the culture of plants of this family, is the exposure of them in borders which have no shade from the hot summer sun. After they have flowered, when they should make their chief growth for the year, they require shade and moisture, and should occupy either a north or east border. The roots of the tender varieties are so susceptible of injury from heat, that if they be cultivated in pots, the pots should be plunged in the earth, the better to secure them against irregularity of temperature and moisture, A fresh, rather light loam, mixed with an equal quantity of leaf mould, is the soil most suitable to these plants. Unlike the Auricula, they never require rich manures.



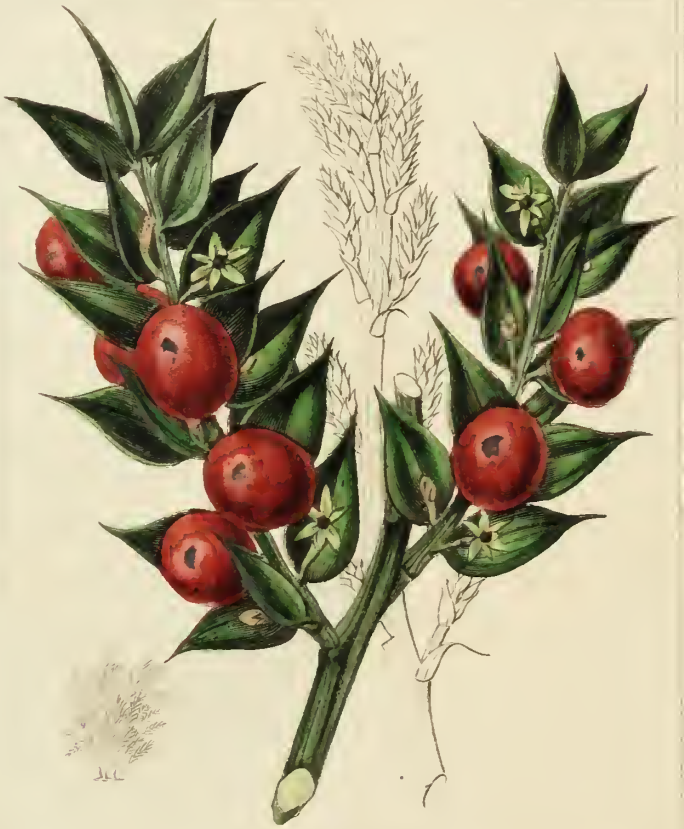
Ranunculus Asiaticus. 2/3



Gentiana asclepiadea. 1/2



Campanula glomerata. 3/4



Ruscus aculeatus. 3/4

RANUN'CULUS ASIAT'ICUS.

ASIATIC CROWFOOT.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Garden Variety.	Height. 1 foot.	Flowers in July.	Duration. Perennial.	Raised in 1847.

No. 1197.

Under No. 271 we have given, at some length, the derivation of the word Ranunculus.

No garden operation has been more unsatisfactory to the generality of amateurs, than the cultivation of the Ranunculus; hence has arisen a pretty general idea of difficulty, attending it; and, consequently, its growth has been confined to a limited number of persons—a few who knew the secret. It is quite true, that to flower such roots as are usually purchased, is a task to which none can promise that they are competent. It often happens that an expensive collection is planted, with every requisite precaution, and perhaps not more than a fourth part will blossom, another fourth part will die, and the major part of the remaining half vegetate miserably, preparatory to their final departure in the following season. A second year's disappointment generally exhausts the cultivator's patience, and he gives up the Ranunculus in despair.

It is, doubtless, a fact, that the perfection of beauty which is sought by the florist, is never found in combination with the unpampered habit of the wild plant. It is obtained by perpetuating the most delicate of the offspring of one generation after another; the desired beauty of the flower is associated with weakness of the plant, the most beautiful being the most delicate. Witness the Carnation, whose delicate striping continues so long as the plant is kept in an artificial state, by reproduction and removals; but give it the natural stimulus of manure, and growth without disturbance, the result is exuberant vegetation, and as a consequence, a return of the flowers towards the original colouring of the species. The restraints of civilization are less productive of bodily health, than the free action of the wild hunter. Perfection of a flower in the estimate of a florist, being the offspring of debility in the plant, hence it follows, that the more perfect the flower, the more delicate the plant, and the shorter its existence. The remedy is found in youthful roots.

This idea has been carried out most efficiently in the garden of J. Willmore, Esq., of Oldford, by his talented gardener, Mr. Cole, to whom we are indebted for the flower now figured—one from amongst, perhaps, twenty thousand — all seedlings—all beautiful—of every tint and marking of which the species can boast; and producing a splendour difficult to imagine. This will the more readily be conceived when we state, that in this garden there were thirteen beds, each of thirty feet long, full of luxuriant plants, bearing a blaze of colours.

We intend to publish another flower from the same collection, of which a drawing is prepared; and we shall then, through the favour of Mr. Cole, have the pleasure of explaining to our readers, his method of proceeding in the propagation of seedling plants.

GENTIA'NA ASCLEPIA'DEA.

SWALLOW-WORT-LIKE GENTIAN.

Class.
PENTANDRIA

Order.
DIGYNIA.

Natural Order.
GENTIANACEÆ.

Garden Variety.	Height. 18 inches	Flowers in July, Aug.	Duration. Perennial.	Cultivated in 1848.

No. 1198.

The origin of the word Gentiana is given under No. 1020.

So true are almost all the Gentians to their standard blue, that a white one is a novelty; and for which we are indebted to the obliging attention of Mr. Moore, nurseryman, of Perry Bar, Staffordshire. Many of the Gentians are not often successfully cultivated, merely from their being too much exposed to the sun and consequent drought; the species asclepiadea is not, however, fastidious in this particular, and may have a place near to the front of the parterre, being as it is, a plant that should be prominently shown.

The herbalists of old are loud in their praises of Gentian. Parkinson, quoting Galen, says,—"That he holdeth it to work by the faculty of bitterness therein; for assuredly if our stomachs could brook this and other bitter medicines, and were not so nice and dainty to refuse whatsoever is not pleasing to the palate, it would work admirable effects in the curing of many desperate and inveterate diseases." The most efficient medicinal species, and probably the one here alluded to, is Gentiana lutea.

CAMPAN'ULA GLOMERA'TA.

DOUBLE CLUSTERED BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Garden Variety.	Height. 18 inches.	Flowers May, Sept.	Duration. Perennial.	Cultivated in 1848.

No. 1199.

For the derivation of Campanula, see No, 963.

The double Campanula, which we now figure, is not alone a novelty, but a showy ornamental border flower; which, being completely hardy, may be termed in modern phraseology, a plant for the million.

The doubling of flowers is a somewhat interesting inquiry, one which is as little understood as any that comes under the investigation of the physiologist. "I confess myself unable," says Dr. Lindley, "to discover, either in the writings of physiologists, or in the experience of gardeners, or in the nature of plants themselves, any sufficient clue to an explanation of the causes to which their origin may be ascribed."

There appears, in flowers having many stamens, to be a greater tendency to become double, than in those having few. Roses, Hepaticas, Poppies, &c., may be mentioned; and in these the stamens become petals; but in some flowers, as in the Ranunculus, the pistil becomes metamorphosed into petals; whilst in the Cowslip, the calyx becomes the changeable appendage. Here are ample subjects of investigation for the curious inquirer.

RUS'CUS ACULEA'TUS.

PRICKLY BUTCHER'S BROOM.

Class.
DIŒCIA.

Order.
MONADELPHIA.

Natural Order.
LILIACEÆ.

Native of England.	Height. 2 feet.	Flowers in June, Dec.	Habit Shrub.	Inhabits thickets.

No. 1200.

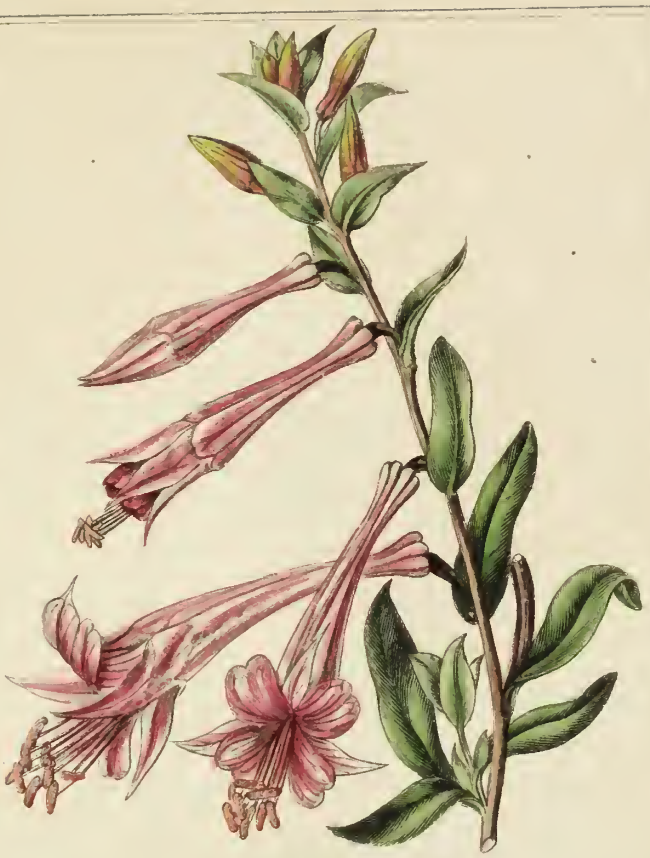
The name Ruscus is mentioned by some authors as a corruption of Bruscus, and this again is supposed to have been a corruption of the Celtic name Beuskelen, which signifies Box-holly. Be this as it may, Pliny notices the plant as wild Myrtle, or Oxymyrsine, which, he says, is the Ruscus of Castor.

How rarely we meet with a garden or shrubbery that has not some unfertile spot; produced, perhaps, by unavoidable shade from buildings, or the drip of trees; a spot, the barren aspect of which the cultivator gladly conceals, by placing about or before it, plants provided for the purpose, which often require renewal. In the Ruscus aculeatus we have a shrub, which seems to be unduly neglected, considering its great utility, for under-growth amongst trees. In corners, and especially under the edges of large shrubs, where even a green turf cannot be continued, this Ruscus will be found most valuable. Its stems are but biennial, and yet as young stems rise annually, and its leaves never drop off, being an expansion only of the stem itself, it is always alike bright and green.

As all our evergreen shrubs appear to unobservant persons never to lose their leaves, so the stems of the Ruscus may seem never to decay; yet the leaves of the one, and stems of the other, obey alike the law of Nature, and give place periodically to their successors. The stems of the Ruscus do not, however, flower till the second year, after which they die to the ground as the Raspberry. The flowers of Ruscus, resting as it were, on its leaves, is rather remarkable; but it is not less so that they are on pedicels, which emanate from the stem, the pedicels being concealed beneath the outer coat of the leaf.

The branches of this plant are used in some parts of Germany, France, and Italy, to make little besoms, for various uses; and its use in the butcher's shop, to cleanse their blocks, and keep off flies, procured for it the name of Butcher's Broom; it has also names in other languages indicative of its use in defending articles from mice, for which purpose it is said to have been used. According to the Arboretum Britannicum, its branches are, in London, employed by the manufacturers of cigars, for sprinkling the saline liquor over tobacco leaves; and its green branches, with ripe fruit on them, were formerly stuck up in sand, with the stalks of the common Peony, and wild Iris, full of their ripe seeds, which altogether made a show in rooms during winter. Its young shoots have been eaten as Asparagus; and a decoction of its roots has been esteemed as a useful medicine in dropsy.

The cultivation and increase of this plant is very simple. As we have before said, it will grow in any shady damp situation; and its roots admit of frequent division for increase.



Zauschneria Californica.

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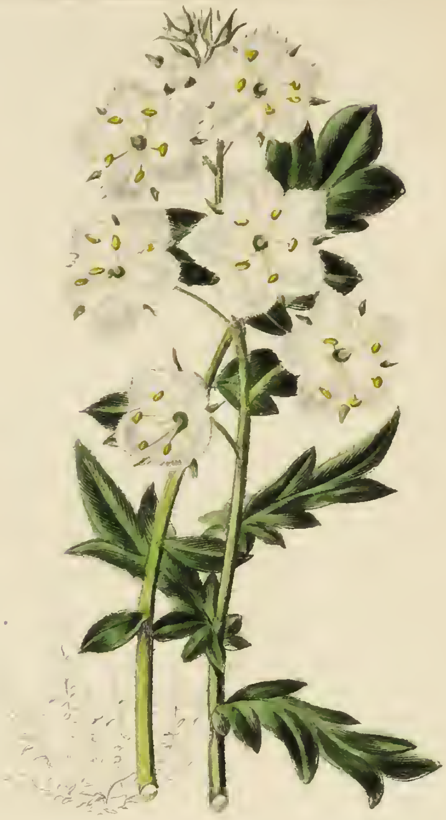
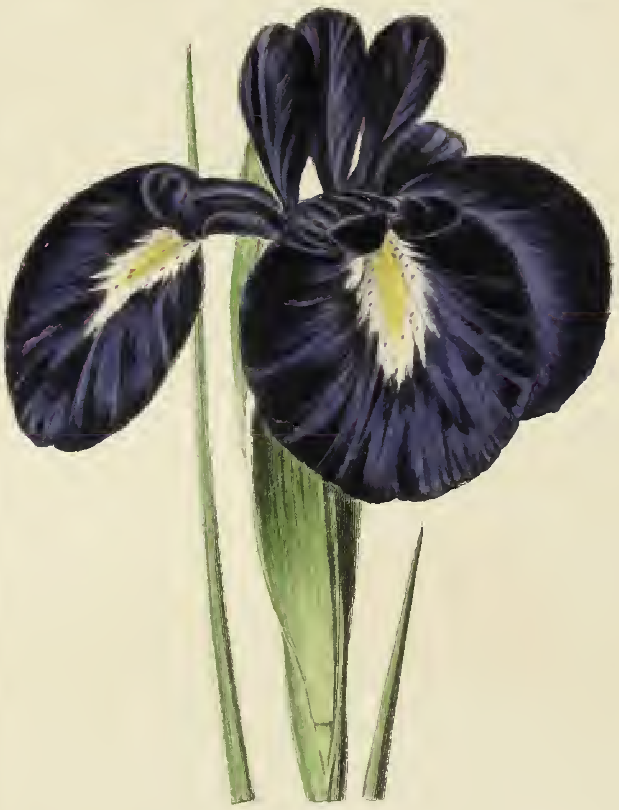


Cosmanthus fimbriatus.



Iris xiphioides.

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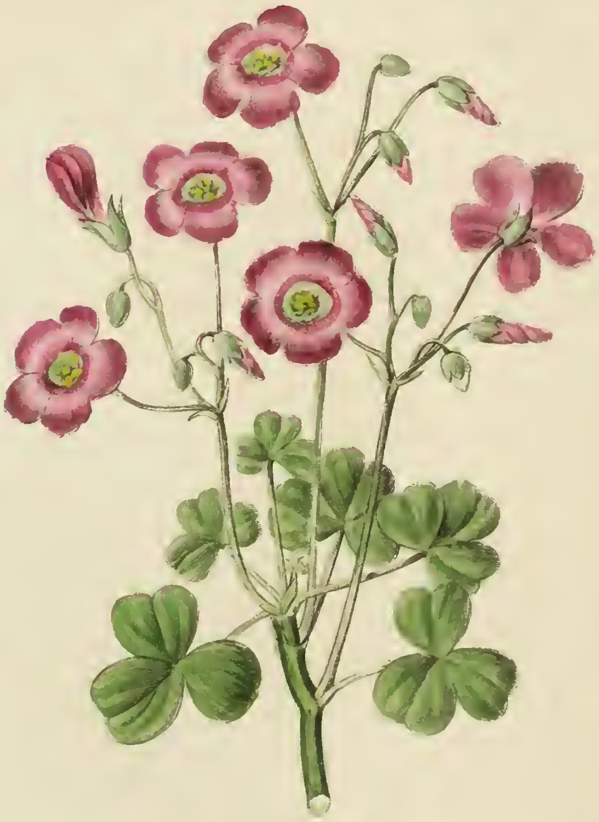


Oxalis rosea.

[illegible]/4

ZAUSCHNE'RIA CALIFOR'NICA.

CALIFORNIAN ZAUSCHNERIA.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ONAGRACEÆ.

Native of California.	Height. 3 feet.	Flowers in July.	Duration. Perennial.	Introduced in 1847.

No. 1201.

The name Zauschneria is, we believe, of German extract, probably from the name of an individual; adopted by Presl, the Bohemian botanist. It but ill accords with English tongues or ears.

Seeds of this plant were collected by Mr. Hartweg, in the neighbourhood of Santa Cruz, in California, and sent by him to the London Horticultural Society, in 1847. It is one about which much noise has been made by cultivators, especially as it has been esteemed suitable for "bedding," and continues long in flower. Furthermore, it has borne full exposure in the borders, through the mild winter, 1848-9; but it has still to be proved that the plant can be called completely hardy in our climate.

In regard to the brilliant display of colour said to be produced by this plant in masses, it has not completely answered all the expectations of its first enthusiastic admirers; still it is a delightful acquisition to British gardens, and is admirably suited to assist display in the mingled borders; where its flowers and foliage may be brought more fully into beauty by the contrast afforded by other plants.

Much has been said respecting the comparative value of the practice in gardens of massing, and of mingling, the gay tints which the gardener has to deal with. Some arguments on this subject have certainly been wasted, on account of the incompatibility of generalized comparisons. Gardens, to be suitable to one style or the other, must differ in arrangement and circumstances. Compartments, each blazing with a single colour, having a suitable geometrical arrangement, may be made productive of fine effect as a whole; but if this be the contents of the garden—if there be no mixed or miscellaneous plants scattered about to excite the search of the botanist or florist, he will retire with a partial gratification. One—even one new and unknown plant, found in the mingled assemblage of exotics, would leave a more pleasurable—a more lasting, impression on his mind, than any gaudy show of colour, that old and familiar subjects could possibly produce. On the other hand, the general observer, or the architect, devoid of a knowledge of, or feeling for, the individual members of the garden, may be fully satisfied with looking on the compound without analysis. Few would admire the science or the taste of the entomologist, whose whole collection was made to consist of a single colossal case, with twenty compartments, one filled with dozens of peacock butterflies, another with as many purple emperors, and so on through the twenty divisions, to the exclusion of all the more interesting families of the insect kingdom. Still, if our entomologist had well-stored cabinets of miscellaneous species, the objection to his fancy for a display would at once subside.

COSMAN'THUS FIMBRIA'TUS.

FRINGED COSMANTHUS.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
HYDROPHYLLACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	18 inches.	July.	Annual.	in 1847.

No. 1202.

It will be readily admitted that the name of this plant is not here improperly applied, having its derivation from the Greek KOSMOS, an ornament; and ANTHOS, a flower.

This delicate annual, closely allied to Nemophila, and Eutoca, is a late addition to our gardens; and, although not one of a splendid class, it may be found useful where bolder subjects would be out of place. As the Rhododendron sometimes forms an undergrowth in American forests; or as the Juniper, Gorse, and humbler Bilberry, become the under-growth of our own woods; so may the Cosmanthus or Nemophila, be employed as the carpeting for beds of standard Roses; or to cover the circles of cultivated soil that is indispensable around single standards of the Rose, Cytisus, &c., when planted on turf.

As the young seedlings of Cosmanthus are succulent and tender, a convenient mode of management is to sow the seeds thinly, in seed pans, in a hot-bed; and when they are half an inch high, remove little patches of them, with the earth about their roots, into small pots, two or three weeks before being turned into the open ground.

I'RIS XIPHIOI'DES.

XIPHIUM-LIKE IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Spain.	2 feet.	July.	Perennial.	in 1517.

No. 1203.

Iris, the Greek name of the rainbow, is aptly enough applied to the plants which it distinguishes.

This species of Iris has long been known in our gardens as the English Iris, although a native of Spain and the Pyrenees. This misnomer seems to have originated with the Dutch florists, who first received it from England, and were unconscious of England not possessing it as an indigenous plant, but being indebted for it to the south of Europe. The Dutch florists, a hundred years ago, as at the present day, were the bulb growers for England, and regularly transmitted to English dealers what they called English Irises, and hereby has this name been perpetuated; assisted, indeed, by our early botanists, who, being deceived themselves, unwittingly assisted in deceiving others.

The immense variety displayed in the flowers of this plant, by their various combinations of colours, has obtained for it an attention in Holland, which has placed it in the class of florist's flowers, and few there are which afford so splendid a show as Iris Xiphioides. A Paris correspondent of the Gardener's Chronicle, (1841, p. 382), says "There are many kinds, all exceedingly beautiful and distinct from each other; those most generally known, are Xiphioides, Xiphium, Variegata, and Germanica. The first has large flowers, selfs, and mottled, blue, purple, lilac, rose, and white. The second has smaller flowers, lemon, orange, bronze, rosy salmon, blue, and blue purple. The two last have large flowers, self, mottled, bordered, and striated; blue, purple, brown, bronze, crimson, lemon, yellow, lilac, and white."

Our plant, like most of those which are received from the continent, possesses a mixed character, which, although it may destroy its botanical identity, has increased its beauty. These bulbous Irises, when raised from seed, sport into varieties, even without fertilization; but when hybridized by an allied species, or, what is more usual, cross-bred, that is, being raised between varieties of its own species, the result has been the produce of splendid flowers, varying interminably in their tints, which on the continent are cultivated under high-sounding names, as florist's flowers usually are.

It is not the bulbous Irises alone, which have met especial attention, for the tuberous species also, such as Germanica, Pallida, Swertii, and others, have been hybridized together, and numerous varieties of great beauty obtained, and cultivated as florist's flowers. So attractive; so easy of culture; and so readily obtained, at small cost, that we especially recommend to our readers increased attention to the cultivation of both bulbous and tuberous Irises. In no tribe of plants is there more powerful, or more pleasurably surprising evidence of the finger of Him, who provides us all things richly to enjoy.

OX'ALIS RO'SEA.

ROSY WOOD-SORREL.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
OXALIDACEÆ.

Native of Chili.	Height. 18 inches.	Flowers in July.	Duration. Perennial.	Introduced in 1823.

No. 1204.

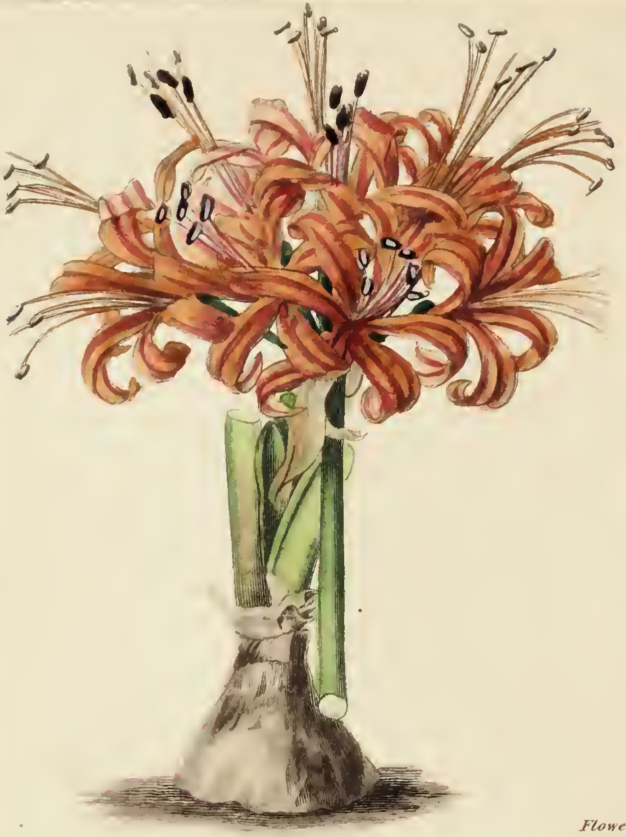
Oxalis, from oxus, sharp : the sour taste of all the species of Oxalis warrants the use of this appellation.

Some confusion of name has existed regarding the species Rosea and Floribunda, which it is difficult to reconcile, excepting by the supposition that both plants were inadvertently sent to this country under one name—Floribunda, by Professor Lehmann, of Hamburgh.

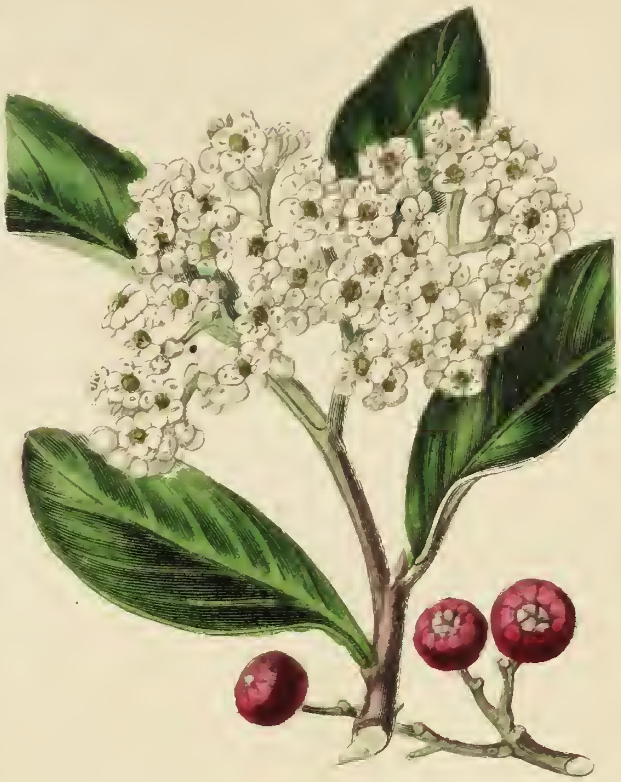
The plant, now figured, and Floribunda also, which we published under 1053, are highly desirable, both for window and border culture. Rosea cannot sustain our severe winters without a little protection, but it may, very conveniently, be propagated annually from seed.

This family contains very many species, possessing much beauty, which are tolerably hardy, and many of them, like those just mentioned, may be entirely managed as window plants; and, if desired, may occupy a place in the borders, during summer.

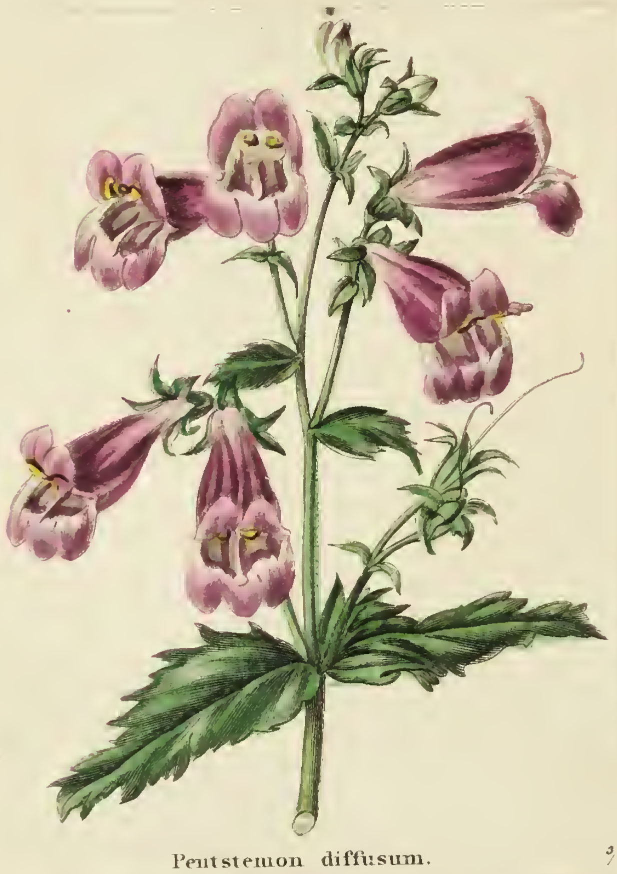
The proper compost for these plants, is a mixture of turfy loam, peat, and sand; and their pots should be drained by a stratum of broken potsherds beneath the soil. The plants should be repotted in February.



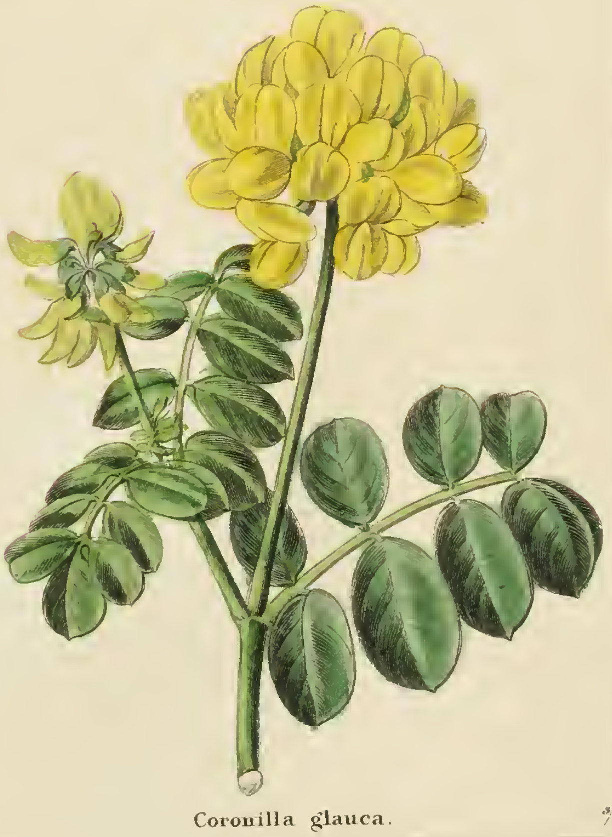
Nerine curvifolia. *Flower 1/2 Bulb 1/3*



Cotoneaster frigida. 2/3



Pentstemon diffusum. 3/4



Coronilla glauca. 3/4

NERI'NE CURVIFO'LIA.

CURVE-LEAVED NERINE.

Class.	*Natural Order.*	*Order.*
HEXANDRIA.	AMARYLLIDACEÆ.	MONOGYNIA.

Native of C. G. Hope.	Height. 2 feet.	Flowers in September.	Habit. Bulb.	Introduced in 1777.

No. 1205.

The name of this genus has been borrowed by the late Dean of Manchester—Dr. Herbert, from the fabulists of classic days, Nerine being fabled as the daughter of Nereus; consequently, she was one of the Nereides or sea nymphs of the poets.

The order Amaryllidaceæ, to which this plant belongs, is somewhat extensive, including Narcissus, Alstrœmeria, Agave, and the allies of these genera, to the amount of between four and five hundred. They are not prominently distinguished for their uses in medicine, the arts, or domestic economy, but a few of the species of Agave appear to be by far the most important. Of the fibrous parts of the leaves and roots of some of these, are formed both cordage and paper. The sap of another forms a detergent article, used by the Mexicans as soap, and of the sour juice of another species of Agave a fermented acid liquor is prepared, and used by the Spaniards, under the name of pulque; a preparation only agreeable to those who have been accustomed to its use.

Nerine curvifolia was originally published as an Amaryllis, with which it has close affinity. Under

No. 1173, where the cultivation of Coburgia fulva is given at length, Nerine is mentioned as one of the genera to which the treatment there recommended is applicable, To this mode of management we would especially call the attention of our readers, a mode which places within the power of those who possess no garden structures for the production of artificial heat, the pleasure of cultivating in perfection an extensive collection of bulbs, than which few plants are more splendid, or more easily managed when the proper method of treating them is sufficiently understood.

Although Nerine curvifolia is nearly as hardy as Amaryllis belladonna, it requires the peculiar excitement of the closed frame, after flowering, to ripen its bulbs, and prepare them for the production of perfect flowers in the following season. For a detail of the management we must refer the cultivator to No. 1173, but in addition to the instructions there given, we may suggest, for the purpose of ripening bulbs, the propriety of employing a frame, set at the foot of a south wall that is occupied by Peach and Nectarine trees. Here the border might be prepared; a frame to open as a box, with its lights set at a very sharp angle, that is, high behind and low in front, so that tall plants may be accommodated at the back. Such an arrangement will produce two-fold advantages. Whilst the bulbs are being matured by a high temperature, obtained by the sun acting on the closed frame, the roots of the fruit trees will also be operated on, so as to assist in efficiently ripening their fruit, and also in ripening the wood—the best preparation for the next year's crop.

COTONEAS'TER FRIG'IDA.

FRIGID COTONEASTER.

Class.
ICOSANDRIA.

Order.
MONOGYNIA.

Natural Order.
ROSACEÆ.

Native of Nepaul.	Height. 10 feet.	Flowers in June, July.	Habit. Shrub.	Introduced in 1824.

No. 1206.

The word Cotoneaster is of irregular derivation; Cotonea being an old term for the Quince, a contraction of AD INSTAR, signifying similar, is added to make up the name. The appellation, frigida, is here used as indicative of the coldness of the mountains, amongst which the tree was discovered in that region of Nepaul called Gossain Than.

The small species of Cotoneaster, which are usually met with in gardens, are but imperfect representatives of the deciduous tree-like Cotoneasters, which to botanists of former days gave the idea of their resemblance to the Quince; and even these trees, themselves, lose their resemblance when in winter they throw aside their emerald wreaths and appear in ornaments of coral—berries as brilliant as regal gems.

Our present plant was raised in England from seed, presented by the Hon. Court of Directors of the East India Company to the London Horticultural Society, but as it belongs to the shrubbery rather than the flower garden, it has not been extensively distributed, although it can be so readily increased by grafting it on the common Hawthorn. It is perfectly hardy in the climate of England, although native of Nepaul, at a parallel of latitude below thirty degrees, which would indicate a temperature producing plants which could only be grown in this country by the assistance of artificial heat. This apparent anomaly arises from the great elevation of the mountain land of this portion of Asia. Here arise the unrivalled Himalayas, forming a mountain district, to which we are indebted for many splendid garden ornaments. From the accounts, lately received from Dr. Joseph Hooker, who is exploring these regions in search of their vegetable riches, we may expect soon to possess still more valuable subjects. He tells of Rhododendrons forty yards across, and fifty feet high; and also of epiphytal Rhododendrons, growing on enormous Oaks, dispensing delicious fragrance around them, their flowers being as large as Lilies, four to five inches across.

The researches of the botanist, for plants that with us may prove hardy, are not alone directed by parallels of latitude, although these geographical lines may be esteemed as the primary guides of temperature. This is a fact, as truly observed by Loudon, in his Arboretum, well worthy of being noticed, as proving the positive advantage likely to acrue to any one country, from introducing into it the productions of every other country, however different they may be in geographical circumstances. It affords a fine illustration of that law of Providence, by which man is enabled by labour, by knowledge, and researches, to add greatly to his stock of enjoyment and happiness,

PENTSTE'MON DIFFU'SUM.

DIFFUSE PENTSTEMON.

Class. DIDYNAMIA.	*Order.* ANGIOSPERMIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	18 inches	June, Nov.	Perennial.	in 1826.

No. 1207.

Pentstemon, literally meaning five-stamened, see No. 1071.

There are scarcely any plants to which the garden is more deeply indebted for its beauty than Pentstemons. The species are so numerous, and so varied, that a complete collection of them, brought together, would be highly interesting. The present handsome Pentstemon was discovered near the mouth of the Columbia River, about five hundred miles north of St. Francisco—that not to be forgotten entrance to the land of gold. Douglas, who discovered this plant, visited California, and there collected in the whole, about eight hundred distinct species. Had the gold fever prevailed whilst poor Douglas was directing his researches on the banks of the Sacramento, he too may have been tempted to give up his digging for flowers to join the motley throng in digging for gold. We may be pardoned the wish that it had been so, and a worthy individual thereby saved from an untimely death in a bull pit—his unfortunate fate, whilst pursuing his botanical researches. Pentstemon diffusum is of easy culture, but liable to be destroyed by severe frost.

CORONIL'LA GLAU'CA.

GLAUCOUS CORONILLA.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

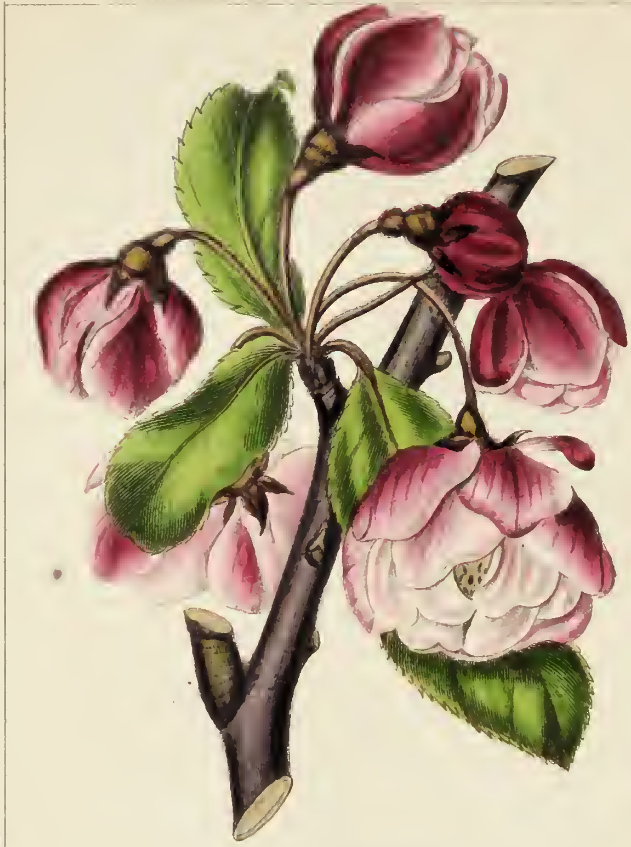
Native of France.	Height. 18 inches.	Flowers in May to Sep.	Duration. Perennial.	Introduced in 1722.

No. 1208.

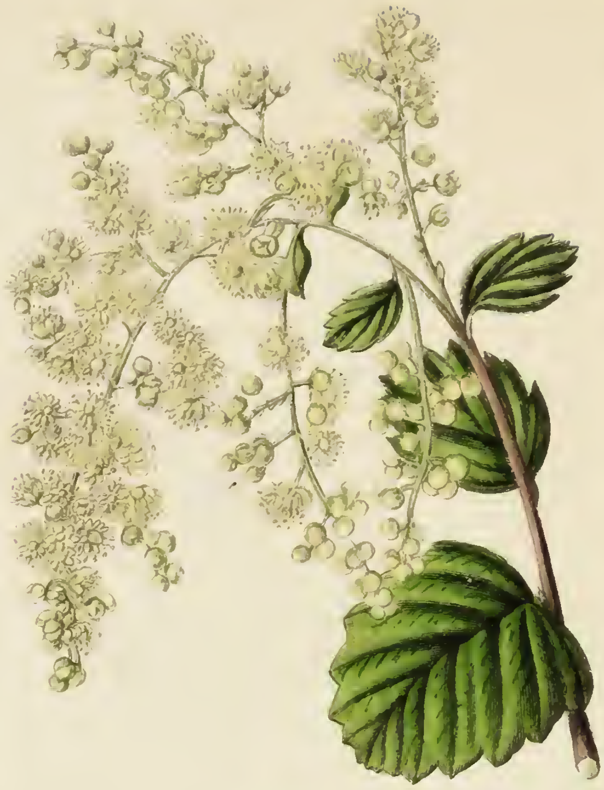
Coronilla, signifying a little crown, is not inaptly applied to some of its golden-flowered species. Glauca points to the peculiar tint of its foliage—an agreeable variation amongst dark green plants.

Here we have a plant of olden time; one that has dealt out gratification for a century past, to cultivators of every grade. The rich possessors of conservatories and greenhouses have given it a place amongst the choicest rarities; whilst the humble possessor of a cottage only, has esteemed its beauty, and given it the sunniest window of his home.

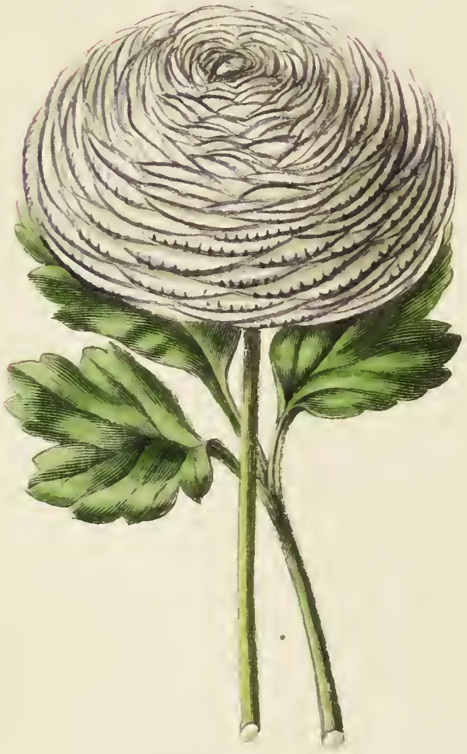
It is undesirable that this plant be too well fed; turfy loam is sufficiently rich for its growth, which will ensure the production of short-jointed wood, and therefore abundance of flowers. As well as the beauty of the flowers, or pinnate foliage, or the variegated variety of the Coronilla, which is not unfrequently met with in cultivation, we should remember the fragrance which its flowers so freely dispense. We should too, remember, with Sturm, when we traverse the wilderness of sweets, that we raise the thought to Him who has commanded the flowers to shed their odoriferous perfumes to delight us.



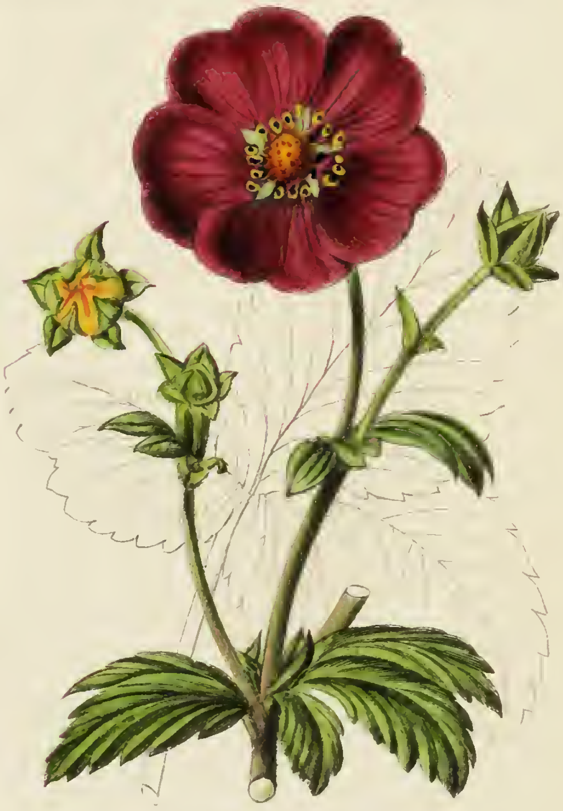
Pyrus spectabilis. 2/3



Spiræa ariæfolia.



Ranunculus Asiaticus. 2/3



Potentilla Macnabiana. 3/4

303

PY'RUS SPECTA'BILIS.

SHOWY CHINESE APPLE.

Class.
ICOSANDRIA.

Order.
DI-PENTAGYNIA.

Natural Order.
POMACEÆ.

Native of China.	Height. 20 feet.	Flowers in April, May.	Habit. Tree.	Cultivated in 1780.

No. 1209.

The origin of the systematic name Pyrus, and hence our word Pear, has been traced back to the the Celtic PEREN, as its origin.

We can but remark with some regret, that the Pyrus spectabilis is rarely met with in the ornamental grounds of our nobility. It is true that its beauty is chiefly dependent on its fine display of flowers, the existence of which is sometimes short, if the season be an unfavourable one. We confess to never having met with it in flower till we saw it in the Garden of Mr. Rivers, of Sawbridgeworth, where it is growing as a fine orchard tree, between twenty and thirty feet in height. It sometimes produces fruit, which is small, about the size of a cherry, and unpalatable; but it ultimately assumes the colour and state of a ripened Medlar, and may then be eaten. It is usually propagated as Apple-trees, by grafting on Crab stocks, and requires but the same amount of attention. Mr. Rivers has, we believe, raised from the Pyrus spectabilis, a seedling variety of much beauty, superior, even to the original tree, in its floral character.

Trees of large size are to be met with in the Botanic Gardens of Oxford and Dublin; at White Knights, Croome, Eaton Hall, and some other residences of note. It is not necessarily grown as a tree of magnitude, for by the same rule as we cultivate Apple and Pear trees—others of the genus Pyrus, and keep them to any size desired, so may we restrict the growth, and retain the ornamental character, of the Pyrus spectabilis. As it is a native of China, it is, in some degree probable, that the Chinese themselves, may have practised their ability in dwarfing this tree, a practice in which they are known to excel. But their excellence, if such term be here admissible, amounts only to trifling and childishness, as was forcibly stated, a few years ago, by Mr. Main, in a communication to Loudon's Gardener's Magazine, he says "the visitor finds nothing interesting in their style of gardening; no scope of ornamental disposition; no rational design; the whole being an incongruous combination of unnatural associations. In one place a piece of craggy rock (real or artificial) is seen jutting out from amongst a tuft of the most delicate garden flowers; fantastic bridges without water; unsightly excavations without character or beauty; the whole being only a repetition of petty attempts at variety, on no greater a scale than the patchwork of a citizen's court-yard; where may be seen a pile of ragged stones placed in a corner; on this dwarf trees and flowers are planted; and in order to produce the resemblance of a grove of pines in miniature, they plant the common Equisetum, (horse-tail) for the purpose." Here we may leave our readers to draw their own conclusions on the grandeur of Chinese gardening.

SPIRÆ'A ARIÆFO'LIA.

BEAM-TREE-LEAVED SPIRÆA.

Class.
ICOSANDRIA.

Order.
DI-PENTAGYNIA.

Natural Order.
ROSACEÆ.

Native of N. America	Height. 8 feet.	Flowers in June, July.	Habit. Shrub.	Introduced in 1827.

No. 1210.

Spiræa, from the Greek Speira, from the twiggy branches of most of the species.

The genus Spiræa, composed chiefly of shrubs, contains many that may be distributed over British shrubberies, with evident advantage to the general effect. They are, too, as well as conspicuous objects, very hardy, being natives of North America and the northern parts of Europe. Although they have no very prominent place amongst medicinal plants, they are esteemed as possessing some tonic properties, and our British species, Spiræa ulmaria, or Meadow-sweet, has sometimes been used in tonic infusions. Spiræa ariæfolia forms a spreading, round bush, from six to eight feet high, and when covered with its light and airy flowers, backed by the darker foliage of evergreens, becomes a striking object in the imagery of a mass of shrubs—a fleecy pale cloud with the deep colouring of a thunder storm in the back ground. No delineation, however graphical, can convey a just idea of these phantom-like masses of blossoms.

This shrub may be abundantly increased by division; or from seeds, which it ripens freely.

RANUN'CULUS ASIAT'ICUS.

ASIATIC CROWFOOT.

Class.	*Natural Order.*	*Order.*
POLYANDRIA	RANUNCULACEÆ.	POLYGYNIA.

Garden Variety.	Height. 1 foot.	Flowers in July.	Duration. Perennial.	Raised in 1848.

No. 1211.

Ranunculus, see No. 221, for the origin of the word.

At No. 1197, we figured a Ranunculus from the splendid collection of J. Willmore, Esq., at Oldford. The flower from which the present engraving was prepared, was derived from the same source; and, by the favour of Mr. Cole, we are enabled to explain to our readers the management, by which these flowers may be possessed, of all hues, by every one, in the greatest luxuriance. The force of the secret lies in rejecting old roots, and in propagating from seed, which demands no great amount of attention, furthermore, it excites an interest by the pleasing expectation of raising something superior to the productions from all former efforts.

To obtain seed, first seek the doublest flowers bearing carpels, but they will be found devoid of stamens; for these, in the double flowers, will have been turned into petals. Having thus selected flowers that are good, both in size and colour, recourse must now be had to others that are less double, having stamens. Of course, the finest flowers furnished with this requisite, will be chosen. Consider what colours amongst your flowers will, by mixing, be the most likely to produce pleasing varieties, and then, with a camel-hair pencil, collect pollen from those having stamens, and convey it to the stigmas, or points of the carpels,—incipient seed-vessels, of those flowers first selected without stamens. Although these would not have borne seed, if left to nature, still a portion of the organs of fructification are perfect, which admit of fertilization by the means here directed; and the tendency to produce petals, instead of stamens, is continued in the offspring. The more perfectly this transformation of parts is effected, the more valuable becomes the flower to the florist. Those flowers which are to be the seed-bearers, will generally be fit to receive the pollen on the fourth day after they begin to expand.

Now that the means have been employed, which are placed within our power by an all-wise Creator, permitting us to assist in carrying out his works of wisdom, it must not be forgotten that our Ranunculuses are in England, and not their native country—Asia, therefore they demand our further attention. The spike of seed must be protected from the rains of our moist climate, or they will be destroyed. An examination of the spikes of seed, after rain, will show the prejudicial tendency they have to retain moisture.

When the seed begins to turn brown, cut off the stems, and place them in an airy situation to dry; after which, the seed may be separated from the stalks, and stored till required for sowing; an operation, the performance of which, we shall, in due time, give directions.

POTENTIL'LA MACNABIA'NA.

MACNAB'S CINQUEFOIL.

Class.		*Order.*
ICOSANDRIA.		POLYGYNIA.

Natural Order.
ROSACEÆ.

Hybrid Origin.	Height. 2 feet.	Flowers in June, Aug.	Duration. Perennial.	Raised in 1847.

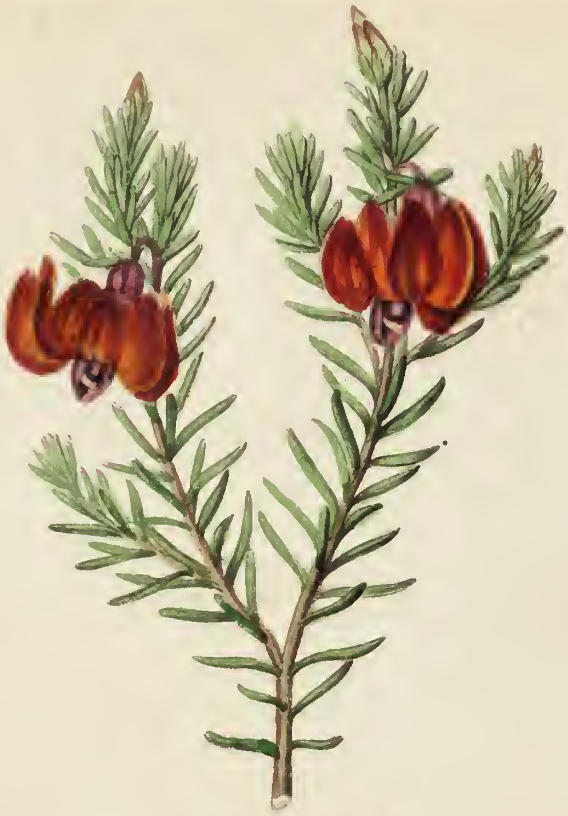
No. 1212.

Potentilla, from potentia, signifying little power.

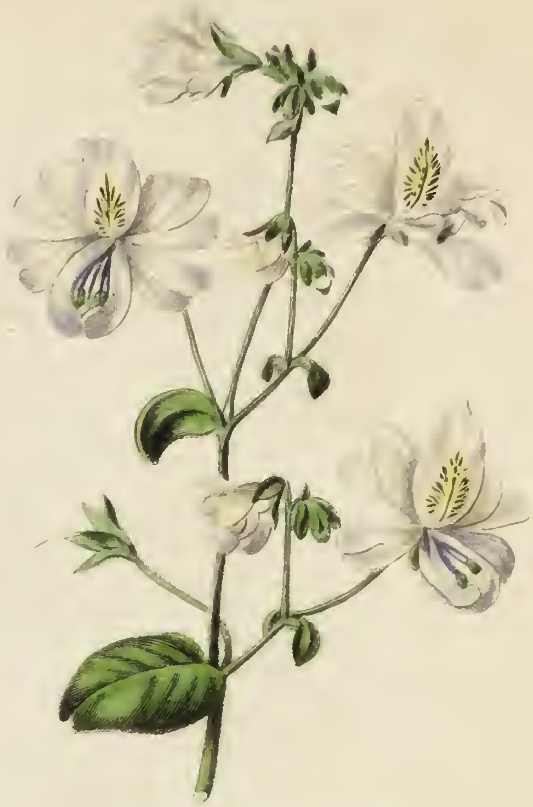
In a family of so much beauty as Potentilla, the cultivator of a flower garden is but too happy to possess all the novelties that are to be had, otherwise it would be unnecessary to figure any but distinct species. Hybrid flowering plants are now too important to be neglected ; they excel, in many instances, the beauty of the original species from which they originated ; a fact which applies to the Potentilla now figured.

Genera which contain species possessing colours so distinct as deep crimson, pink, yellow, and white, afford a fair opportunity for these being mingled to advantage. A progeny has also been raised between Potentilla and its close ally, Tormentilla.

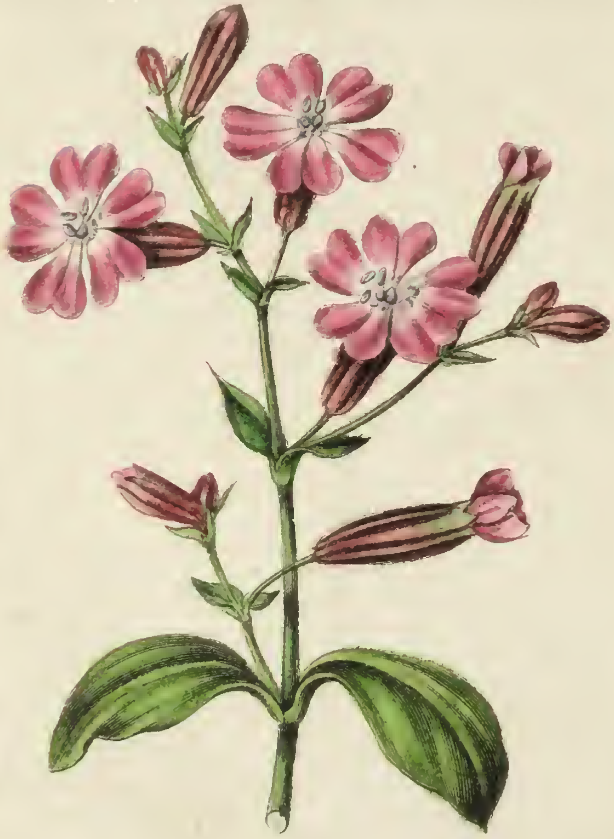
Potentilla Macnabiana bears, we presume, the name of its propagator. Its colour approaches nearly to the scarlet of Geum Chiloense, and is, we believe, the most showy of the whole family. In cultivation it demands no peculiar care, being completely hardy, and although it does not increase so rapidly, as some others, it admits of occasional division at the roots.



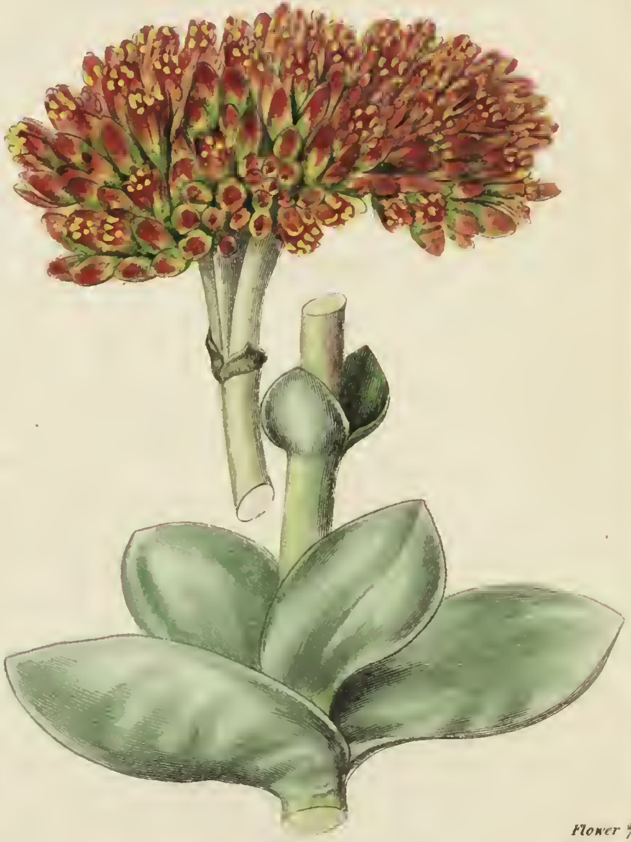
Leschenaultia formosa.



Schizanthus Priestii.



Silene pendula.



Larochea falcata.

LESCHENAUL'TIA FORMO'SA.

BEAUTIFUL LESCHENAULTIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
GOODENIACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
N. Holland	1 foot.	June, July.	Shrub.	in 1824.

No. 1213.

The name Leschenaultia, was adopted by our celebrated botanist, Robert Brown, now president of the Linnean Society, a gentleman of the profoundest botanical knowledge, unconscious of superiority. Mr. Brown adopted the name in compliment to his friend, M. Leschenault, the appointed botanist to Bauden's expedition; and the distinction by which he separated the genus from all others, is one of those minute, but unchangeable differences, which the botanist alone, with his microscope, can duly appreciate. Each grain of its pollen, notwithstanding its minuteness, is composed of four almost inconceivably minute granules, making it compound. Other parts too, of its organs of fructification, are equally interesting. Dr. Lindley, writing on an allied species, says "The indusium, or peculiar covering to the stigma, is highly curious, and much developed in this plant, forming a compressed, two-lipped purple cup, covered with soft down on the outside, and completely enclosing the green viscid stigma, which occupies the lowest part of its cavity. It appears to serve the purpose of scooping the pollen out of the anthers of the flower to which it belongs, and retaining it there while necessary; at least all the indusia we have examined, were uniformly filled with granules of pollen." As well as possessing these peculiarities, so worthy the attention of the botanist, this plant has been an object of admiration for several years, at many of the first floricultural exhibitions in the vicinity of the metropolis. There is also another capacity, in which it must be considered as especially useful, that is, as an appropriate ornament in geometrical gardens, laid out on the models of the French and the Dutch. Here it may be planted in the miniature compartments, or in the vases which usually decorate these prettily-embellished cabinets of nature and art. Many such gardens are to be met with in the suburbs of London and large towns, as well as connected with the mansions of the nobility; and although they may, sometimes, be the recipients of conceits, denominated cockneyisms, they often contain respectable sculptures, or other works of art, and also good plants, with careful keeping, which are always enjoyable; excepting by those cynics who labour to expand a single inconsistency, till they fancy it overshadowing all the beauty with which it is associated. What a pity it is that the eyes of some such persons always admit the rays of deformity, excluding those of beauty.

It should not pass unrecorded, that Great Britain owes its possession of this Leschenaultia to Francis Henchman, Esq., who sent out, at his own expense, a collector to King George's Sound, who discovered this and many other plants that are now cultivated in our gardens.

SCHIZANTHUS PRIESTII.

PRIEST'S SCHIZANTHUS.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
C.G. Hope	18 inches.	July, Aug.	Annual.	in 1795.

No. 1214.

The rather remarkably cut, slit, or jagged flowers and foliage of most of the species of Schizanthus amply justifies the choice of the name, which is derived from the Greek SKIZO, to cut; and ANTHOS, a flower. The white-flowering variety, now figured, is rarely met with, in gardens, although it was raised, several years ago, by Mr. Priest, a nurseryman, of Reading.

It is very questionable whether any permanent difference exists between Schizanthus pinnatus, and porrigens, the latter of which was figured under No. 126, of this work; and the white flowering one, here represented, is also a mere seedling variety from one or other of these. Botanically considered, it is very objectionable to use names as if treating of distinct species; in cultivation, however, it affords some convenience that they should be so distinguished, and to such convenience, it appears desirable to yield.

This Schizanthus requires only the treatment of a half-hardy annual, but it must be recollected, that the young seedlings will not bear careless transplanting, nor a very dry situation.

SILE'NE PEN'DULA.

PENDULOUS CATCHFLY.

Class.
DECANDRIA.

Order.
TRIGYNIA.

Natural Order.
CARYOPHYLLACEÆ.

Native of Sicily.	Height. 1 foot.	Flowers in May, July.	Duration. Annual.	Introduced in 1731.

No. 1215.

The names Silene and Catchfly are given to this genus from the peculiar viscid exudation found on most of the species. In some, the stems are wholly coated with this viscid matter, in others it chiefly occurs below the joints. This, in some cases, seems dependent on a glandular clothing; but in others, the viscidity occurs where the stems are perfectly smooth, the exudation being wholly through the cuticle.

The specific name pendula, has been chosen on account of the pendulous position which the seed-vessel assumes, after the flowering of the plant. This is occasioned, it has been remarked, by the weight of the seed. We would rather assign what we think a more weighty reason; namely because He that bade it both flower and seed, willed it. Why, we would ask, does the American cowslip, (Dodecatheon Meadia) whose flowers are pendulous, begin, as the seed increases in weight, gradually to raise, instead of depress, its seed-vessels till they become erect? The answer will be readily found in the requirements of the plants. In the one the shape of the seed-vessel best performs its office of protection and dissemination in an erect, the other in a pendulous position, irrespective of the weight of the seed.

Silene pendula has a glandular surface, but not much viscidity; it is a showy, useful, annual; especially for filling up nooks in the front of a shrubbery; where it may be sown even under the shrubs with freedom. It will carpet such spaces, with an unartifical gaiety, as if Nature herself had bestowed on the spot, more than common attention. It continues long in flower, and from the scattered seeds of autumn, we have seen an abundant crop of early flowering plants in the following season; and not the less pleasing from being somewhat crowded and thereby dwarfed. It may also have a place on artificial rock-work; or in patches, near the front of the mingled flower border. As well as being a native of Sicily, it is also a native of Cyprus and Italy; and about Rome, many of the banks are decorated with its gay pink flowers. It loves a dry light soil, but yet may be grown in almost any situation.

The viscid exudation from the different species of Silene, is not, as we are aware of, employed for any useful purpose. That substance which is gathered as an exudation from trees, and which seems to have been the most important to man, both in ancient and modern times, is manna. We venture no opinion as to what the manna of the Israelites was, or how it was provided for their sustenance, during forty years, but of the fact we are assured. This is produced by many species of trees; and in warm climates, it appears that our own Ash-tree is amongst the number.

LAROCH'EA FALCA'TA.

SICKLE-LEAVED LAROCHEA.

Class.
PENTANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

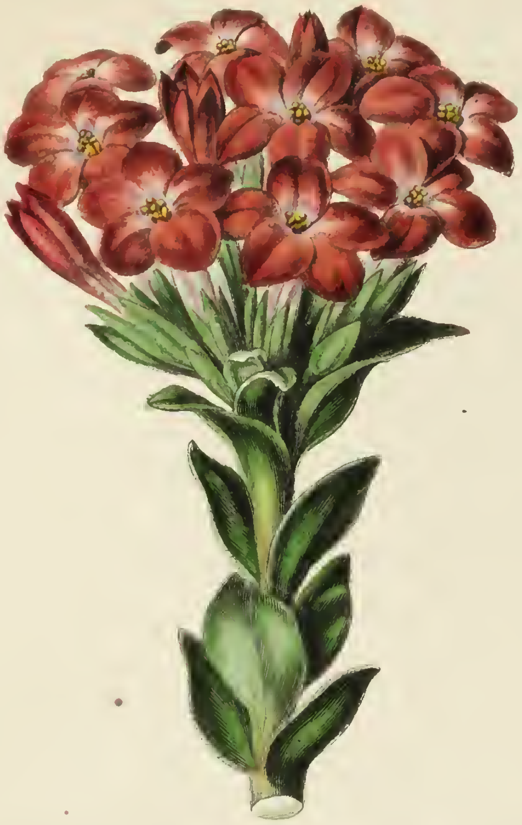
Native of	Height.	Flowers in	Duration.	Introduced
C.G.Hope.	18 inches.	Sept. Oct.	Perennial	in 1795.

No. 1216.

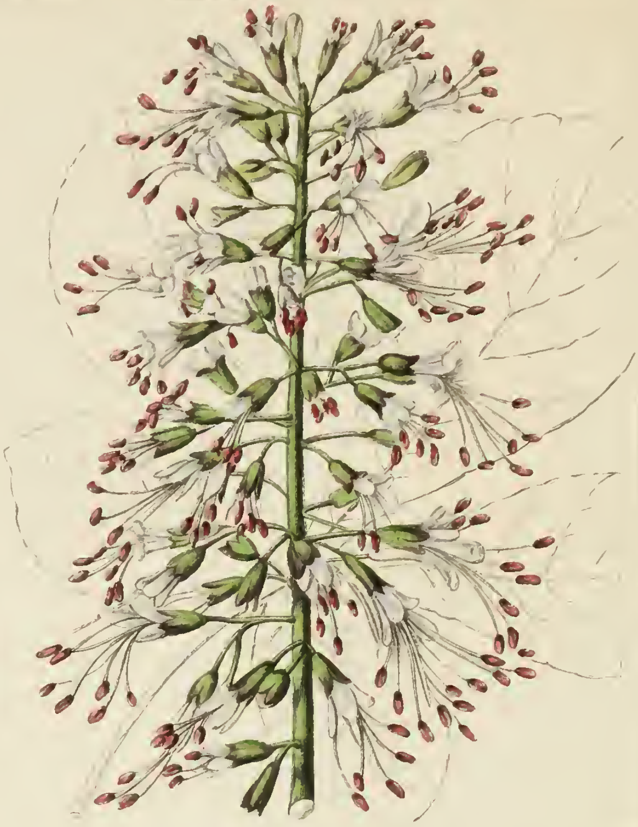
The present genus of plants was named by M. Decandolle, in honour of M. de la Roche, the author of a work on Ixia and Gladiolus. The name is sometimes written Rochea.

Larochea falcata is one of a class of plants that we could desire to see more generally cultivated. Most of the succulent plants excite some interest from their odd forms, whilst many of them produce handsome flowers; and above all, they are worthy of attention, for their disregard of a little neglect. It is a sad misfortune for plants, or persons, to be excessively sensitive. A little neglect destroys the life of a very sensitive plant, and it sometimes destroys years of friendship between very good people. Those who feel themselves over sensitive, should now and then take a glance at Dr. Johnson's Dictionary. The Doctor explains SENSITIVE to be "Having sense or perception, but not reason."

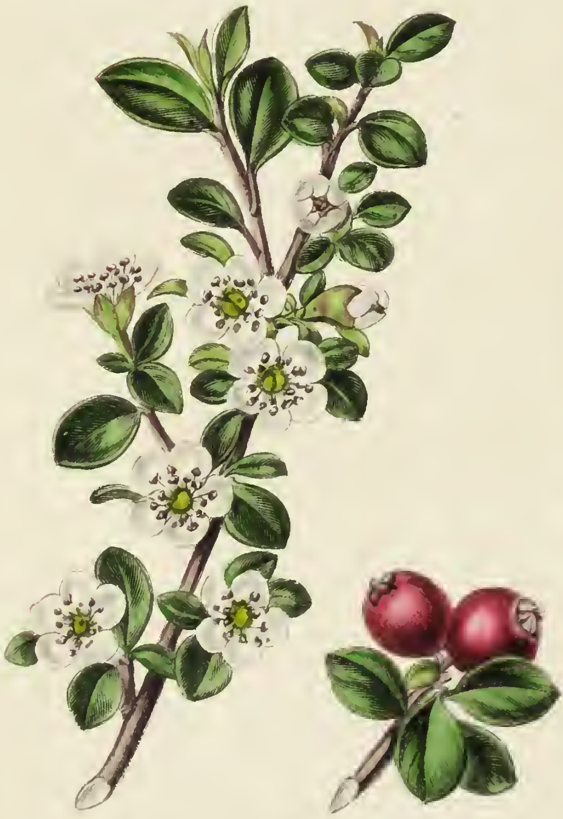
Larochea falcata makes an admirable window plant, requiring very little attention. Whilst blossoming, and in an active state of vegetation, it may be freely watered; afterwards gradually withhold it; and during winter, it should be kept nearly dry.



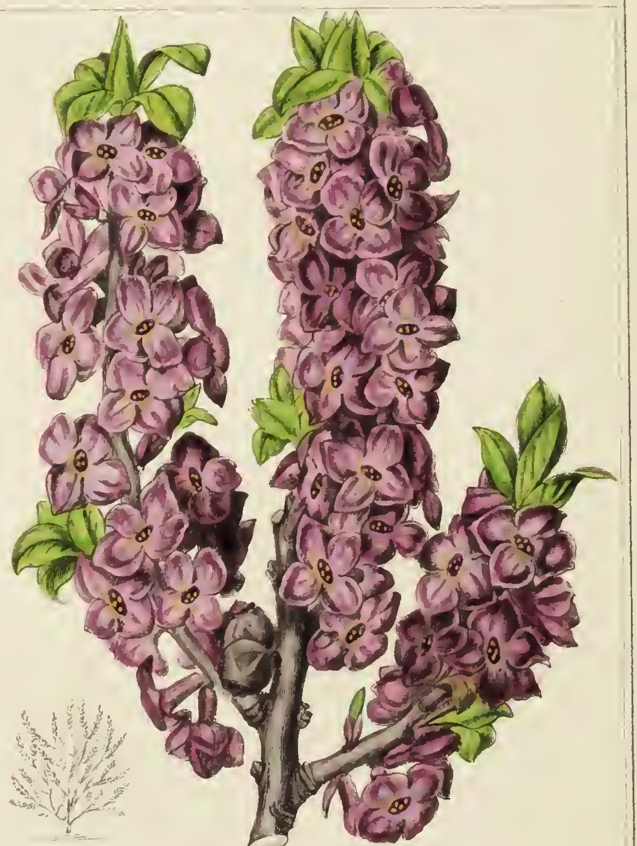
Kalosanthes coccinea. 3/4



Pavia rubra. 1/2



Cotoneaster rotundifolia. 2/3



Daphne mezereum. 3/4

KALOSAN'THES COCCIN'EA.

SCARLET KALOSANTHES.

Class.
PENTANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of	Height.	Flowers	Duration.	Introduced
C. G. Hope.	3 feet.	June to Aug.	Perennial.	in 1710.

No. 1217.

Kalosanthes was adopted as a name for this genus, by the late Mr. Haworth, by whom the division of the genus Crassula, to which this plant formerly belonged, was effected. It is compounded from the two Greek words KALOS, ANTHOS, beautiful flowers.

"We have no doubt," says Dr. Simms, in the Botanical Magazine, "but that when this superb species of Crassula was first introduced from the Cape, by Professor Bradley, of Oxford, in 1714, it was regarded as a kind of Merveil de la Nature; even now that it is common, we scarcely know any succulent that is superior to it, whether we regard its grandeur, the curious growth of its leaves, or the rich colour of its blossoms.

"This is, indeed, a very attractive, succulent, and one amongst the most desirable for cultivation as a window plant. Few persons are aware of the little trouble incurred by the culture of the tribe of plants called succulents, to which the Kalosanthes belongs. The application of the general name 'succulents,' is sufficiently evident, from their succulent or juicy thick, fleshy, leaves. It is this property which renders them less dependent on our regular attention;

for nine-tenths of the care of a plant, when confined in a pot, arises from the continual necessity of giving it fresh supplies of water. So small a quantity of earth, as is contained in pots, which generally admit of rapid evaporation of moisture through their substance, subjects plants to a perpetual variation of the quantity of water about their roots: they are subjected to a deluge or a drought; and quickly betray irregular superintendence.

At the first glance, it may reasonably enough be conceived, that a remedy should be sought in the use of pots that would not admit of ready evaporation. These have been tried. The effect of using impervious pots, through which the water cannot be lost, is found, in practice, to be more destructive to plants than even some neglect in watering them. The water being stagnated, lichens are quickly produced on the surface of the soil, and the plants become diseased and die. Some species of plants, but these seem to be few, bear such treatment almost with impunity; experience, however, indicates that none flourish under such management, in the same degree as when planted in porous pots, and receiving due attention. Soft or mildly-burnt pots, are best suited to pot culture, provided that proper attention be given to watering.

The propagation of Kalosanthes, and of Crassula also, is as simple as their culture. Cuttings of them, laid by for a few days to dry the wound, strike root very readily, and fresh sandy loam, mixed with a little peat, we have found to be a suitable compost without brick or lime rubbish. It is of importance that the pots be thoroughly drained.

PA'VIA RU'BRA.

RED-FLOWERED PAVIA.

Class.
HEPTANDRIA.

Order.
MONOGYNIA.

Natural Order.
SAPINDACEÆ.

Native of N.America	Height. 30 feet.	Flowers in July.	Habit. Shrub.	Introduced in 1711.

No. 1218.

The name, Pavia, was adopted in honour of Peter Paw, a Dutch botanist, who was professor of botany, at Leyden.

The trees now brought together in the genus Pavia, were formerly mixed with those called Æsculus, or common horse-chestnut. The cause of their separation arose from the difference of their capsules, those of the Æsculus being rough, whilst those of Pavia are smooth.

The flowers of the Pavia rubra, although much smaller than those of the common Horse Chestnut. are very ornamental; and from its ready adaptation to any situation, as a tree of large dimensions, or as a shrub of low growth, it may be made useful in small or large shrubberies, or in parks. In a few situations, as at Syon, it has attained the height of about thirty feet, whilst in some gardens, it may be seen as a shrub of only five or six feet.

Hybrid varieties, between several of the species of Pavia and Æsculus are obtainable in nurseries, but they should be selected when in flower. They may be propagated by grafting one upon another of any of the species.

COTONEAS'TER ROTUNDIFO'LIA.

ROUND-LEAVED COTONEASTER.

Class.
ICOSANDRIA.

Order.
DI-PENTAGYNIA.

Natural Order.
POMACEÆ.

Native of Nepal.	Height. 3 feet.	Flowers in May, June.	Habit. Shrub.	Introduced in 1820.

No. 1219.

The derivation of the word Cotoneaster has been stated under No. 1206.

This is a really useful, close-growing, neat shrub, for ornament in a garden. It may be planted on artificial rockwork, against a wall or trellis; or, with a little attention to its support, and judicious training, may be grown as an independent bush. Its abundant produce of flowers, and equally abundant scarlet berries, which continue the year round, make it still the more desirable.

Some authors have believed that this and the plant published at No. 830 of this work, are identical; there is no reasonable doubt, however, of their distinctness of character. Dr. Lindley says that "native specimens have convinced me that this is a distinct species from Cotoneaster microphylla, it being a plant of more vigorous growth, having somewhat longer and flatter leaves, and bearing flowers more frequently in twos and threes than single."

Either rotundifolia or microphylla may be grafted on standards of the common hawthorn, and they will make exceedingly ornamental trees, with evergreen drooping branches.

DAPH'NE MEZE'REUM.

MEZEREON.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
THYMELACEÆ.

Native of England.	Height. 4 feet.	Flowers Feb. to Apr.	Habit. Shrub.	Inhabits Woods.

No. 1220.

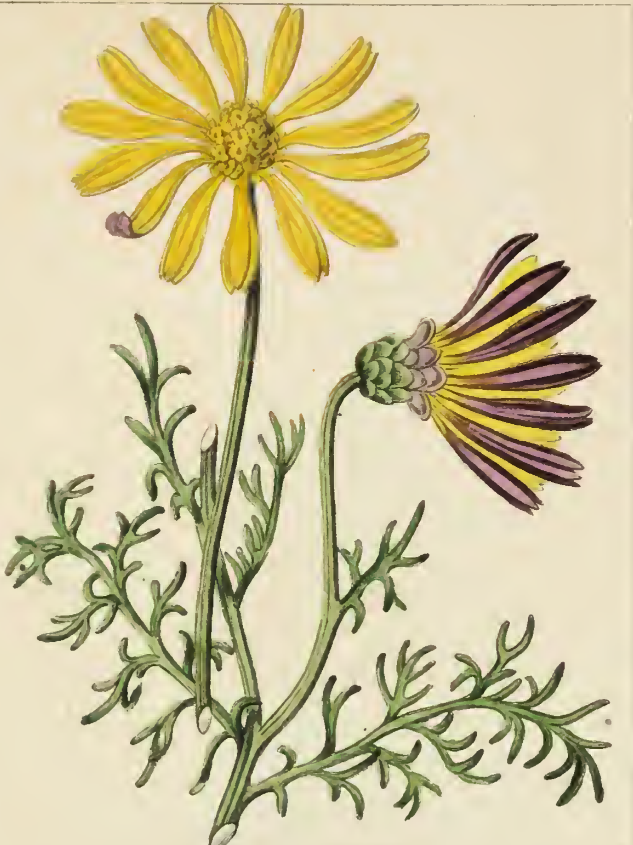
Daphne is the Greek name of the Laurel, and although plants were frequently named by the Greeks after certain of their fabled deities; in this instance it seems to be pretty certain that the nymph—Daphne, was named after the plant. The common name mezereon, is said to be of Arabian origin, and was used by old authors to distinguish a shrub which it is now difficult to determine. Being transferred by early English herbalists to our present plant it has become the established English name.

Daphne mezereum has been frequently met with in English woods as a wild plant, and it is also indiginous to France, Germany, and most of the northern parts of Europe; although, in our gardens, it is rarely seen more than two feet high, it is said, sometimes to grow even to six feet, with spreading branches of corresponding extent. Of such size it would constitute a most attractive shrubberry plant, laden as it usually is, nearly all the year, either by its flowers or its brilliant scarlet berries. • It is somewhat curious that the flowers produced in the spring may be detected in the bud so early as the preceding midsummer. A variety is sometimes met with having variegated foliage; some too, have white flowers, and others pale pink, but their prevailing tint is a pinkish purple. It is the first shrub to cheer us after the dreary season; to stand as a landmark between winter and summer, and give us welcome promise of better days to come.

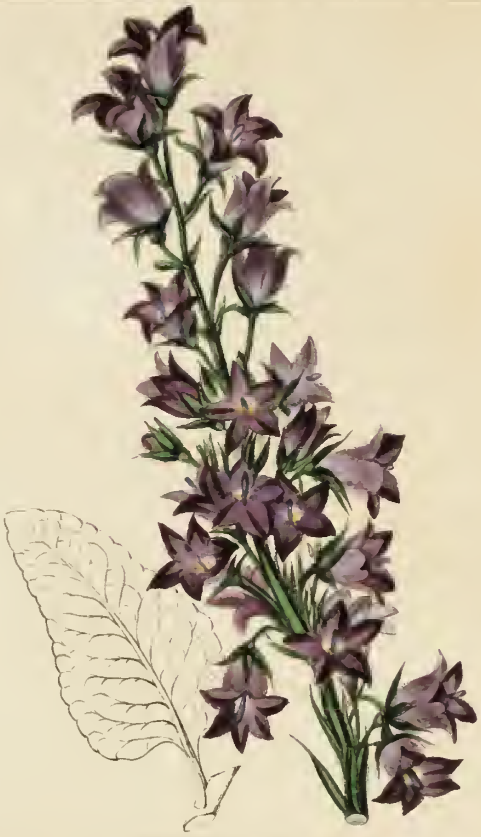
It must be remembered that although birds eat the berries of the Mezereon with impunity, they are poisonous to some animals, especially human beings; and as their acrimonious quality is not discovered immediately, they are the more dangerous; hence it becomes important that they should not be left within the reach of children. Dr. Swediaur says that Camphor is an antidote to the poison. Subsequently to an emetic, oil, butter, and linseed tea, have been prescribed as suitable emollients.

This, like other poisons, becomes in the hands of the medical man, a valuable remedy to disease. Dr. Withering relates, in his "Botanical Arrangement," that he cured a patient who had suffered for three years, from a difficulty of swallowing, occasioned by a paralytic affection, She was directed to chew a slice of the root as often as she could bear it; the irritation thus raised effected a cure, although she had long been unable to swallow solid food.

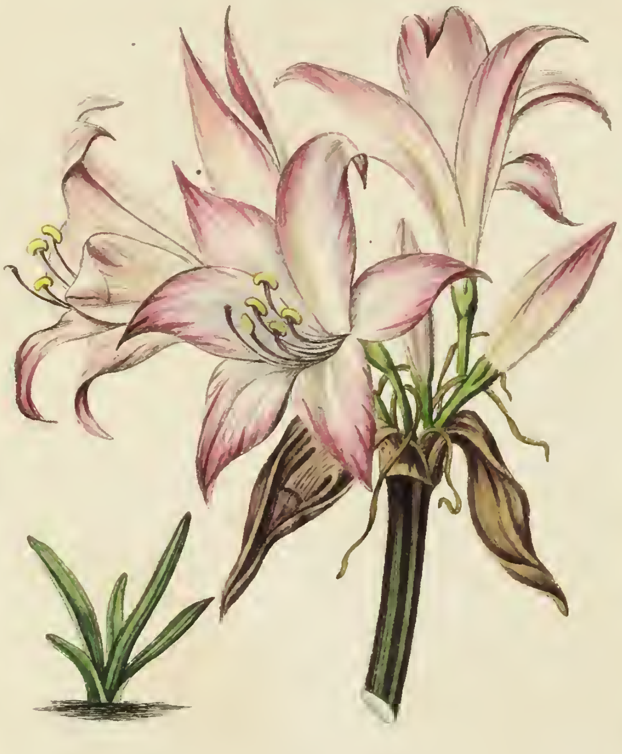
In France the bark of the Mezereon has been used under the name of 'Garou' as an irritant. A piece of the bark, macerated in vinegar, is applied to the skin, and renewed night and morning till it cauterizes the surface; and by the subsequent usual treatment a perpetual serous discharge is effected. In this country the bark of the root is used; in Germany that of the branches.



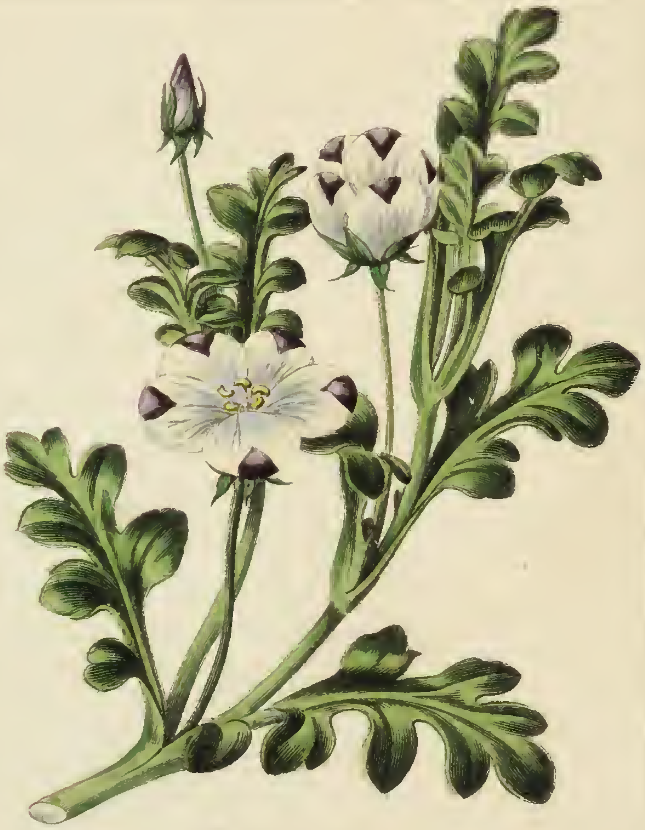
Sphenogyne anthemoides. 2/3



Campanula rapunculoides. 1/2



Amaryllis belladonna. 1/3



Nemophila maculata. 3/4

SPHENOG'YNE ANTHEMOI'DES.

ANTHEMIS-LIKE SPHENOGYNE.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of C. G. Hope	Height. 9 inches.	Flowers in July, Sep.	Duration. Annual.	Introduced in 1775.

No. 1221.

The generic name here adopted is founded on the shape of the stigma, which is that of a wedge; hence the Greek words SPHEN, a wedge; and GUNE, a female, form the foundation of the appellation Sphenogyne.

Notwithstanding this annual plant is neither more tender than many now in cultivation, nor is it less showy and interesting, yet it seems to be almost lost to our gardens. Seeds of it are sometimes brought from the Cape, but have not, as far as we know, obtained a place in the commercial lists of London seedsmen.

The showy character of this flower is much assisted by the interior surface of its petals being of bright yellow, whilst their exterior surface is of deep purple. Whilst in the bud the flower has a nodding position, from which it will be observed the opening one in the engraving is rising. When fully expanded, the flower becomes erect, but on fading, the head is again found pendent; and, as the seeds ripen, it once more assumes an erect position, and the membranous crown of the seed gives to it a second time an almost flower-like effect.

So prominent is the evidence in this plant, of design for the proper protection and ripening of its seeds, that the most careless observer cannot but recognise the hand of a superintending Providence over these the minor works of creation, if such they may be called. The apathy with which the mass of mankind pass amongst all the provisions which are wisely made for the protection and continuation of the innumerable species of plants, is very unlikely to permit him to see or examine into their habits, or the inscrutable arrangements, — we may say the actions of which they are capable, for their perfect preservation. Who amongst us, even if he be furnished with the most acute philosophy of the schools, —that his physiology penetrate every vessel and cell of the vegetable body, can unfold to us the natural operations of matter, which induce these changes of position, so nicely adapted to the requirements of the plant! Here we see the stem rising up, and carrying with it the flower in its incipient state, tiled over with the calyx to protect it in its drooping position. The flower advanced to perfection, erects itself, and opens its beauties to the sun, whereby the organs of fructification receive its vivifying powers, and the spirit of life is given to the infant seed. This completed, protection to the tender embryo is given by the head again turning downwards, to render the imbricated calyx a defence against rains. The seed being perfected, may thus have been dropt to the earth; it has, however, beauty in its seed wings, and again the head rises, not alone for display, but that the seeds may the better take flight with the wind, and be carried the farther away.

CAMPAN'ULA RAPUNCULOI'DES.

RAMPION-LIKE BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of England.	Height. 3 feet.	Flowers June, July.	Duration. Perennial.	Inhabits Woods.

No. 1222.

The readers of the Botanic Garden will recollect the derivation of the word Campanula, which has been several times noticed.

The Rampion, or Campanula rapunculus, which our present plant resembles, was formerly much better known in our gardens, than it is at the present day. It was cultivated for its roots, which were used as a salad, with oil, vinegar, and pepper, sometimes boiled, and sometimes as we use Radishes. The root is crisp, has a nutty flavour, and was usually considered to be wholesome. Should any one desire to revive the use of a neglected plant, seed may be obtained, and should be sown late in May, as early-sown plants run to seed in the autumn. The roots become fit for use through the winter months, commencing as early as October.

The Campanula rapunculoides has not a tap-root, to render it important in the kitchen, like its ally, the Rampion; but is cultivated as an ornamental plant in the borders, for which it is very suitable. It is perfectly hardy, grows in any common garden soil; and may be divided for increase, in spring or autumn.

AMARYL'LIS BELLADON'NA.

BELLADONNA LILY.

Class.		*Order.*
HEXANDRIA.		MONOGYNIA.

Natural Order.
AMARYLLIDACEÆ.

Native of	Height.	Flowers	Habit.	Introduced
W. Indies.	2 feet.	July to Sep.	Bulb.	in 1712.

No. 1223.

Amaryllis, the name of a shepherdess in the works of the ancient fabulists, is derived from the Greek AMARUSSO, signifying to be resplendent.

Belladonna Lilies, according to Miller, were introduced to this country from Portugal; and when well established, under favourable circumstances, in the open ground, they produce an effect that cannot be readily forgotten. Their fine bold stems, from two to three feet high, surmounted by umbels of six or eight flowers each, produce an impression on the mind never to be felt in the greenhouse. They have been brought, of late years, in considerable numbers to this country, but still are rarely met with where they ought to be seen in their splendour,—in the open flower garden. It is the want of knowledge in regard to their management, to which their absence from our borders must be attributed; a matter the more to be regretted, from the little attention they demand, if that attention be judiciously directed.

Where these Lilies can be planted on the outside of the front wall of a greenhouse, or similar erection, possessing the advantage of a dry soil produced by the warmth of the wall, they seem, after once being planted, to be independent of attention; for we have known them to blossom for years without disturbance, even in the north of England.

To secure similar success, where no greenhouse or protectors are available, it should be remembered that the flowers are produced in autumn, the foliage subsequently in winter, and early part of the spring. The preservation of their foliage, through which the bulbs, and the succeeding crop of flowers, become matured, it will at once be seen, must be of the first importance.

Let the bulbs be planted at the foot of a wall, having a south aspect; and, if the under soil and situation be not altogether of dry quality, it should be drained with a stratum of broken bricks, eighteen inches beneath the surface. An excellent compost to place thereon, is two parts of fresh turfy loam, one of leaf mould, and one of sand. In this, plant the bulbs, about eight inches deep, and three from the wall. When they come into flower, moisten the earth, as long as the flowers continue; then suffer no rain to fall on the border, till frosts are past. This will somewhat retard the progress of the leaves, and afford a better chance of protecting their growth uninjured, till the mild weather and genial showers of spring, give them luxuriance, and assist them in the healthy formation of their bulbs. During the frosty season, place tan, moss, or straw, on the border, and about and over the leaves, so as to give them effectual protection; and, when the leaves die in summer, keep the earth as dry as possible, till the flower stems again appear. They will abundantly repay the attention.

NEMOPH'ILA MACULA'TA.

SPOTTED NEMOPHILA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
HYDROPHYLLACEÆ.

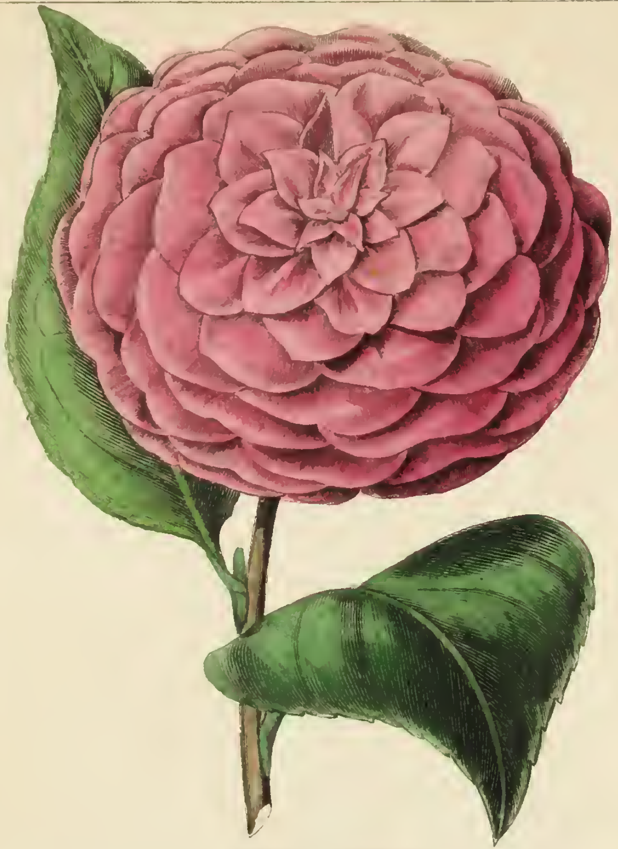
Native of California.	Height. 9 inches.	Flowers in August.	Duration. Annual.	Introduced in 1848.

No. 1224.

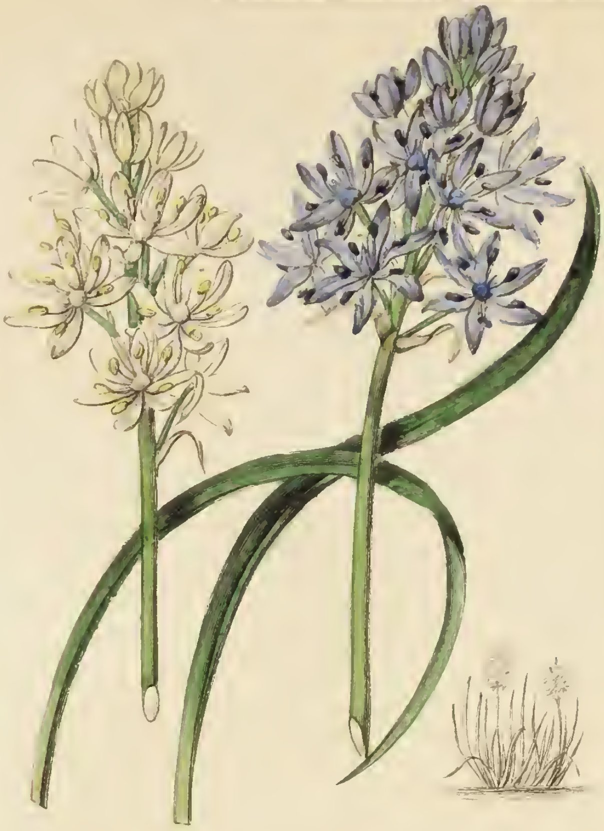
This genus may be called, conformably with its name, the shade-loving genus. Nemophila having been deduced from the two Greek words NEMOS, a grove; and PHILEO, to love.

Nemophila maculata is a handsome showy annual, possessing much the same habit as Insignis, previously published at No. 635. It was raised in the London Horticultural Society's Garden, from Californian seeds, sent home by Mr. Hartweg, the Society's collector. Its superiority over Insignis depends chiefly on the purple blotch of its petals; and this varies in different plants, and possibly, if no attention be paid to the selection of the plants from which seeds are collected, this mark of beauty may sometimes be lost.

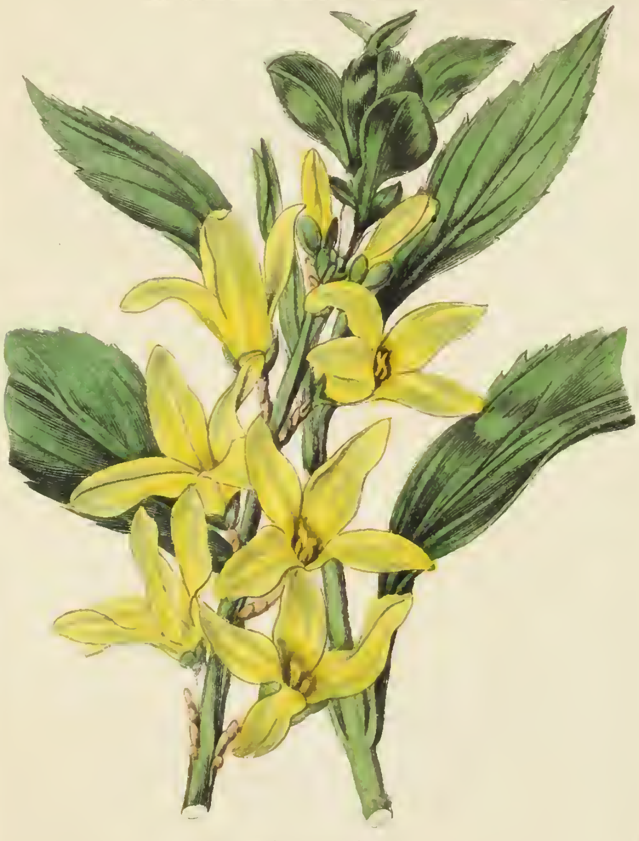
Too much care can never be bestowed on the choice of all plants from which seeds are to be gathered. Those with the most luxuriant habit, and with flowers the most perfect, should always be selected as parents; and by this means, to a certain extent, a progressive improvement may, in general, be obtained. Seeds may be sown in the borders, in April; or, for early flowering, in the autumn.



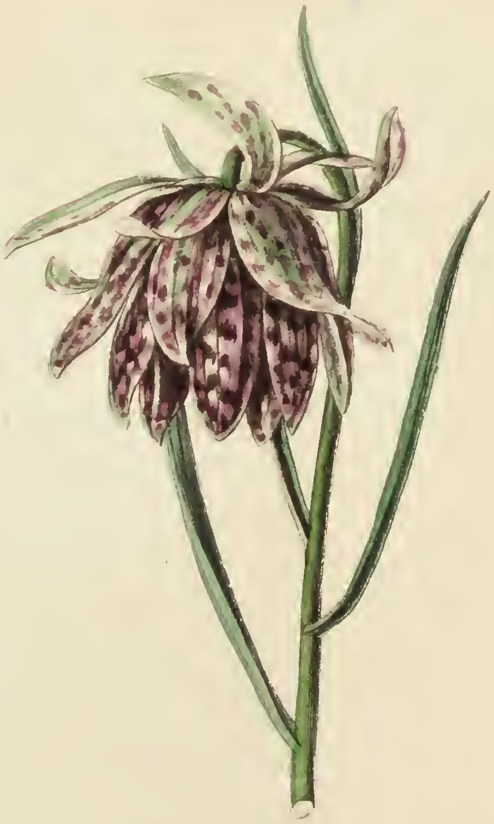
Camellia Japonica. 2/3



Scilla Italica. 2/4



Forsythia viridissima. 3/4



Fritillaria meleagris. 3/4

CAMEL'LIA JAPON'ICA.

Var. Alcamene.

HERBERT'S CAMELLIA.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
TERNSTROMIACEÆ.

Native of China.	Height. 10 feet.	Flowers in April.	Habit. Shrub.	Raised in 1842?

No. 1225.

A Jesuit, named Camellus, is commemorated in the name of the plant here figured.

Under No. 1171, we described a method of culture, by which the Camellia may be successfully grown and flowered in the open garden. We have no experience respecting the hardiness of this particular variety; its great beauty, however, claims for it a place in these pages. As a pot plant, and assisted by the cold frame, or protectors, it may doubtless be grown and flowered. It was raised at Spofforth, by the late Hon. and Rev. William Herbert, Dean of Manchester, and by him esteemed as the most interesting of his rarities.

Our drawing was made from flowers which were obligingly supplied by Mr. Errington, the talented gardener at Oulton Park, the seat of Sir Philip Egerton. The perfect symmetry of the flowers, and their charming tint, but more especially the former property, is unequalled amongst the numerous varieties in cultivation, of this very attractive genus. This being the case, many of our readers will, doubtless, be glad to possess a correct representation of it.

SCIL'LA ITAL'ICA.

ITALIAN SQUILL.

Class.	*Order.*
HEXANDRIA.	MONOGYNIA.

Natural Order.
LILIACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Switzerland.	9 inches.	Apr. July.	Bulb.	in 1605.

No. 1226.

The Greeks made use of a word similar to our Scilla, and on that our own seems to have been founded ; they also applied it to an acrid bulb, which most authors admit to have been our medicinal squill.

The Italian Squill, now figured, is rarely met with in gardens, although the whole genus is so generally admired. We owe the possession of both varieties, the blue and the white, to the Rev. W. T. Bree, of Allesley. With us it has been very slow of increase, and its habit, in this particular, may account for its scarcity.

We would especially recommend the attention of our readers to this attractive genus of bulbs, both for their beauty and the pleasures they afford by meeting us when even the first daisy of the spring is a delight. They flower on, from year to year, regardless of neglect; and it is unnecessary that they should be removed, unless it be to divide and increase them. Removal should be effected in summer whilst the bulbs are dormant. The removal of bulbs in a growing state should never, but in cases of necessity, be effected.

FORSYTH'IA VIRIDIS'SIMA.

GREEN-LEAVED FORSYTHIA.

Class. DIANDRIA.	*Order.* MONOGYNIA.

Natural Order.
OLEACEÆ.

Native of China.	Height. 8 feet.	Flowers in April.	Habit Shrub.	Introduced in 1844.

No. 1227.

The name which distinguishes this genus was adopted, some years ago, for a Lilac-like shrub, a native of Japan, in honour of William Forsyth, who was Gardener to George III. Forsyth distinguished himself by his attention to forest trees, and his celebrated composition for healing injuries on them. His directions on this subject will be found in the 230th section of the Auctarium.

The newly-discovered species, which we have now to introduce to our readers, is the only addition which has been made to Forsythia, and to this we are indebted to the London Horticultural Society; who, after the Chinese war, sent out Robert Fortune, in 1843, to China, to explore that country, in quest of fruits, edible vegetables, and flowering plants, which may be useful or interesting in Great Britain. Although nothing new and important was discovered for the supply of our tables or our necessities, still some curious plants were thus introduced amongst us; and, moreover, it may be that the most valuable consequences of the mission are yet to be developed; inasmuch as Fortune made himself acquainted with the growth and preparation of Tea, and he was subsequently engaged by the East India Company, to return to China, to collect Tea plants, for transmission to the British provinces in India, in which he has already proved very successful. The time may not be very distant when Great Britain, through her Indian dependencies, may not only supply herself with Tea, but become a competitor with China in the sale of that article to foreign nations.

Respecting Forsythia viridissima, which is a valuable acquisition to our hardy early-flowering shrubs, we will permit Mr. Fortune to speak for himself. He says " This is a deciduous shrub, with very dark green leaves, which are prettily serrated at the margin. It grows about eight or ten feet high, in the north of China, and sheds its leaves in autumn. It then remains dormant, like many of the deciduous shrubs of Europe, but is remarkable for the number of large prominent buds which are scattered along the young stems produced the summer before. Early in spring these buds, which are flower buds, gradually unfold themselves, and present a profusion of bright yellow blossoms all over the shrub. which is highly ornamental." It was met with in the garden of a Mandarin, near Tinghae, with the Wigelia rosea, which we have described at No. 1187. Both plants, it is said, are great favourites with the Chinese, and are grown in all the gardens of the rich in the north of China.

We were obligingly supplied with flowering specimens, by Mr. Catlin, Curator of the Birmingham Horticultural Society's Garden, where it is trained on a wall of south aspect, and flowers profusely.

FRITILLA'RIA MELE'AGRIS.

Variety multiplex.

GUINEA-FOWL FRITILLARY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
LILIACEÆ.

Native of	Height.	Flowers	Habit.	Inhabits
Ireland.	1 foot.	April, May.	Bulb.	Moist places.

No. 1228.

The Latin word fritillus, a dice box, has been considered the foundation of Fritillaria. If the name be founded on the chequered pattern of the flowers, the dice or dice-board, and not the box, is alluded to. The specific name Meleagris, the Latin name of a Guinea or Turkey-hen, has also been used on account of the chequered colouring of each.

With species of this double variety of the English Fritillaria, we are favoured by Mr. Macpherson, from the gardens of the Hon. Frederic Gough, of Perry Hall. It is the variety grown at the Epsom nursery, and inserted in the Hortus Britannicus as multiplex; it is completely hardy, and an ornamental border plant, requiring no care after being once planted. A collection of Fritillarias of this character would be interesting and desirable in the open garden, to assist in filling up the floral blank in the latter part of April and beginning of May; a blank that usually exists after the first flash of spring has past, and summer perennials and annuals have not commenced flowering. To assist those who may desire to collect a few of these smaller species of Fritillaria, we will mention the chief of them.

Of Meleagris three, or even four, distinct varieties may be obtained. The single brownish purple, the single lilac purple; double of the same; and single white. A moderately clear pink, also, may sometimes be met with. Another variety, or distinct species, was received in this country, by Professor Ledebour, who discovered it on the Altai mountains. It resembles the English species but is smaller, hence it is called minor by its discoverer.

Of Latifolia, three plants were originally published in the Botanical magazine as varieties, The first much larger and with broader foliage than Meleagris; its flowers a chequered dull purple. The second variety much resembling it but smaller, and now made a distinct species, by Willdenow, and called nervosa. The third variety, of the same size as the last-mentioned, but its flowers are chequered yellow, and it is now elevated to the distinction of a species, by Bieberstein, as lutea.

Fritillaria Pyrenaica produces from four to six purple flowers on each stem, and has been called racemosa. Fritillaria tenella, or racemosa minor, is smaller than the last mentioned, and its flowers of more dull colour. Fritillaria obliqua has smaller flowers than either of the preceding, and unlike them is not chequered, but of very dark purple. Fritillaria nigra, sometimes called Pyrenaica, from its being published by Gawler under such name, is of dark brown colour, and increases more freely than most others.

These would form a good collection of the low-growing species; the taller ones we may notice hereafter.

Ranunculus Asiaticus.

31

Azalea variegata.

3/1

Tussilago alpina.

Scilla amœna.

23

RANUN'CULUS ASIAT'ICUS.

Variety, Director.

ASIATIC CROWFOOT.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Garden Variety.	Height. 1 foot.	Flowers in June.	Duration. Perennial.	Raised in 1847.

No. 1229.

The meaning of the name Ranunculus has been recently noticed.

The varieties of this flower are so numerous, and at the same time so universally attractive, that we are tempted to figure a few of the most distinct in character, to keep our readers in remembrance of them, and to afford ourselves the opportunity of presenting them with such information, from time to time, as may have newly arisen out of the experience of practical men, and be useful to all those who desire to secure success in the culture of these prominent ornaments of the garden. The principal secret in the attainment of success in Ranunculus culture is wholly centred in depending only on new varieties. The certain method of procuring these is to raise them from seed, which is not only easy but exceedingly gratifying.

The beautiful flower of which we have here given an illustration, was one of several fine specimens forwarded to us, by Mr. Carey Tyso, Florist, of Wallingford, who has been successful through many years past in raising a great number of excellent varieties of this flower from seed. "Director" his name for this variety, bloomed for the first time in the seed-bed, in 1848, and has also bloomed finely in the two succeeding seasons.

In reply to our enquiries of Mr. Tyso, respecting his methods of propagation and culture, he has obligingly stated to us, for the information of our readers, that he makes several sowings of Ranunculus seed, during the months of October and February. The risk attendant on the autumn sowing is greater than the spring, as the young plants require to be wintered in frames, but the advantage in the size and strength in the autumn-sown tubers over those of the February or March sowings, is so apparent that he continues to sow largely in autumn. The tubers are taken up in July, kept in dry sand during the period of rest, planted in February in the open beds, an inch and a half deep and five or six inches asunder, and here they flower abundantly in June, so that the period from sowing to flowering is ordinarily about a year and three quarters. Seedlings blossom so vigorously and profusely that they amply reward the diligent and persevering cultivator.

On a former occasion we figured one of Mr. Tyso's seedling Ranunculuses, and he then obligingly sent us a detail, not only of his method of cultivating this plant, for flowering, but also the necessary instructions for raising seedlings, which will be found in the Auctarium, under the 194th section, and to this article we would especially refer our readers. At the same time we would call their attention to the explanation of Mr. Cole's practice in obtaining Ranunculus seeds. It is stated under plant 1211.

AZA'LEA VARIEGA'TA.

VARIEGATED AZALEA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
China.	4 feet.	May.	Shrub.	in 1822.

No. 1230.

The dry and arid situations inhabited by the original Azalea, occasioned the adoption of this name, from the Greek word AZALEOS, dry.

We here adopt the name Azalea from its universal use, at the same time we wish it to be understood, that no distinctive botanical character exists between Azalea and Rhododendron which can separate them into distinct genera. Hence all are now named Rhododendron, excepting the single species which we published at No. 1184. Variegata, too, is but a popular name, this plant being a Chinese variety of Indica. These minor anomalies cannot, all at once, be swept away. The advice of an old author deserves some attention—"Think to rule and speak to custom.

Rhododendrons, now included in the order Ericaceæ, were formerly included in an order apart from the Ericaceæ or Heaths, but their separation, founded on the dehiscence, or splitting of the capsule, is now not esteemed sufficiently important to warrant their separation.

Much attention has of late been paid to the forcing of Azaleas, and splendid specimens of them generally enrich the earliest floricultural exhibitions of Spring. In the open garden, too, few plants surpass them in beauty. In another capacity also, where neither greenhouse nor garden exist, they may form objects of interest to the domestic circle, and in the cottager's conservatory—his parlour, kitchen, and hall, the Azalea may be cultivated with the same gratifying success as so usually attends Pelargoniums, Fuchsias, and many other plants in similar situations.

The cottage management, or window-culture, of this plant is quite simple, and it is only necessary that we should state its leading features. Supposing that a healthy potted plant be obtained in October, it will then have formed its blossom buds preparatory to spring flowering. To mature these in the house it will be necessary that the plant have plenty of light and moderate watering, till the first or second week in November; after which time water must be very sparingly supplied during winter. When its blossoms prepare to show themselves in spring, this intimation of the plant's increasing action, and consequent increasing wants, must not be neglected. Its supply of water must be increased; and, when fully in flower, it will require a liberal supply daily. Subsequent to flowering, the growth of the plant, and its production of flower-buds for the ensuing year will proceed; and light, air, and water must be freely given; and in May, plunge the pot in an open border; and still water pretty freely through the summer, till the first of October, when it must again be taken charge of in the sitting-room window.

TUSSILA'GO ALPI'NA.

ALPINE COLT'S-FOOT.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Austria.	Height. 8 inches.	Flowers Mar. May.	Duration. Perennial.	Cultivated in 1710.

No. 1231.

Tussilago is a name adopted from the medicinal properties of the Tussilago farfara, or common Colt's-foot. It is formed from the Latin tussis, a cough ; and ago, to cure.

The Tussilago Alpina should never be wanting in a collection of alpine plants in pots, and although it will be liable to be lost in the borders without care, as indeed, will almost any other plant in the course of time, still amongst rock-work, with occasional transplanting, it may be considered safe. Low plants in the mingled flower-border usually suffer injury, and sometimes destruction, from being overgrown by their neighbours, especially annuals, which not unfrequently make most unwarrantable inroads on the legitimate domains of all who reside near them.

Under No. 19, we published Tussilago fragans, a plant of which we would remind our readers. It may be confined in large pots, and thus sunk in the borders to restrain its wandering propensities, and its odoriferous Heliotrope-scented flowers, produced in winter, will richly repay the trouble bestowed on its culture.

SCIL'LA AMŒ'NA.

PLEASING BLUE SQUILL.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
LILIACEÆ.

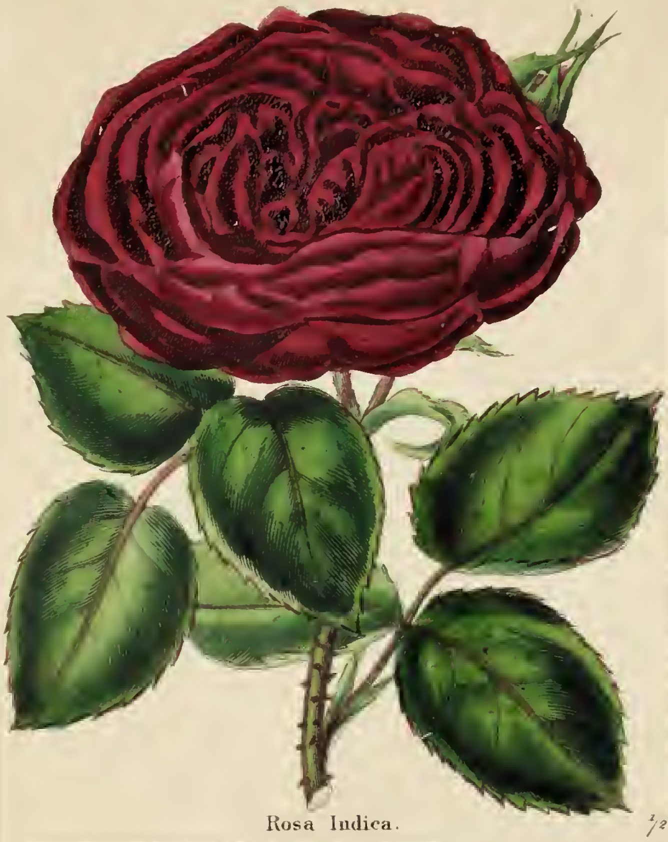
Native of Levant.	Height. 6 inches.	Flowers in April, May.	Habit. Bulb.	Introduced in 1600.

No. 1232.

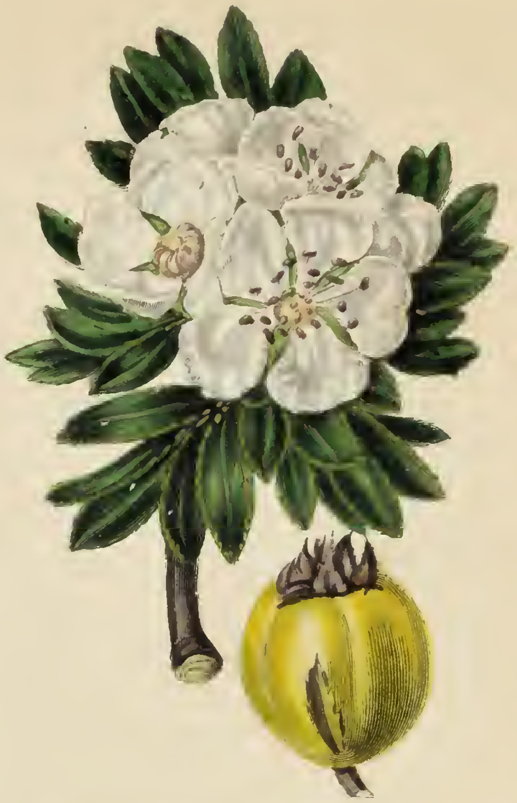
Scilla, it has lately been mentioned, was used as the name of a bulb by the Greeks; hence it has been adopted by modern botanists, in preference to the invention of a new word.

We have previously commended various species of Scilla to cultivators of bulbs, both on account of their beauty, and the very little trouble required in their culture. Old English authors valued them, and Parkinson, in his Paradisis Terrestris, has figured about thirty Squills and Hyacinths, for then, —two hundred and fifty years ago, they were all called Hyacinths, or Jacinths, and in allusion to some of these, he says "We cherish them all with great care in our gardens." Gerard, too, his contemporary, says "I am first to entreat of those bulbous roots, whose fair and beautiful flowers, are received for their grace and ornament in gardens and garlands." It is evident that there were some amongst our forefathers, centuries ago, who could duly appreciate the beauties which were scattered amongst them by a benificent Creator.

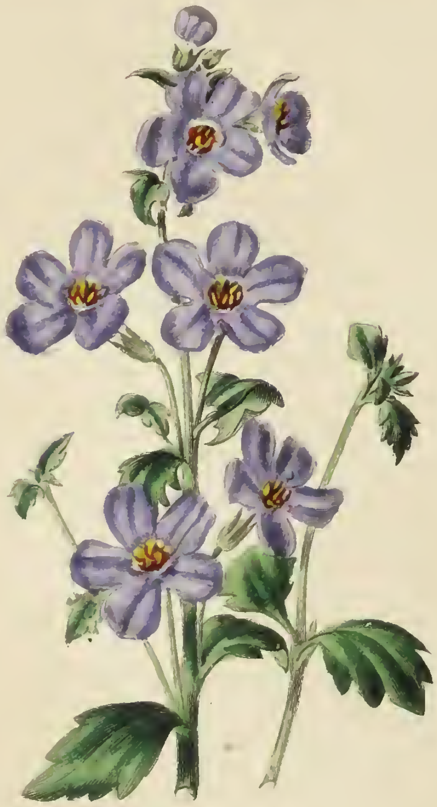
Scilla Amœna was known to our early cultivators; is perfectly hardy; and a very desirable species.



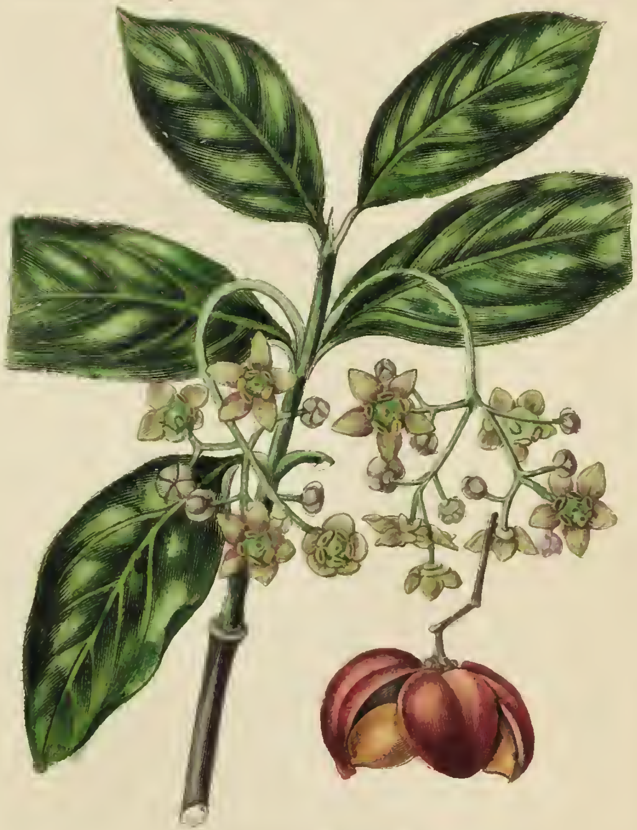
Rosa Indica. 1/2



Cratœgus tanacitifolia. 3/4



Chœnostoma polyanthum.



Euonymus Americanus.

RO'SA IN'DICA.

Variety, Geant des Batailles.

CHINA ROSE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Of hybrid Origin.	Height. 6 feet.	Flowers JunetoNov.	Habit. Shrub.	Introduced in 1847.

No. 1233.

The derivation of Rosa has been lately noticed.

Indica includes a numerous progeny, so very different in their flowers, and in their manner of growth, that the common observer has little chance of determining them ; it is indeed difficult for the botanist, with written characters before him, to point out the species to which many of the newly-raised species should be annexed. This has arisen from the thousands of seedlings that have, of late years, been propagated. Species and varieties have been mingled over and over again, and selection after selection made, till the offspring, losing all character of the parents, has come forth as a new individual, more brilliant and beautiful than any of its progenitors. These have been raised, chiefly in France, no inconsiderable portion of the motive power being generated in England. But why should we carry our gold to the continent, to Rose growers? At the cost of a shilling for land, and an almost inappreciable amount of labour, the English amateur—or even the mere cottager, may raise Rose trees from seed, and secure to himself the chance of being the propagator of a new variety, worth more than his whole year's labour.

A word on this subject. Deposit the heps, when ripe, in pots of soil, and plunge them in a dry border. In February clean the seeds, and sow them in a warm situation.

M. Laffay, the French Rose grower, has raised upwards of two hundred thousand seedlings in a single year ; whilst English garden lovers not only lose the pleasure and the honour of propagating superior varieties, but wait with impatience to send their gold to him for Roses that are new. As Mr. Paul, in his "Rose Garden" (infinitely the best work ever written on the culture of the Rose) justly says, "Why should France labour alone in this field? why should she have all the fame, reap all the profit?"

The Rose which we now figure—"Géant des Batailles, or in plain English, "Giant of the Battles," combines two qualities which, we believe, renders it superior to every other in cultivation. These are, brilliancy of colour, and continuity of flowering. It is pronounced, by the first authority of the day, "the most brilliant, the most beautiful, ever beheld." Seen in its highest perfection, we can accord it high praise; but, in the majority of soils, its true colour is rarely developed. Here is a field for experiments; something wanted, and doubtless this something can be added. Without entering on the abstruse subject of colour in flowers, we can assert, from experience, that the red colour of flowers is increased in intensity by their growth in strong red loam. If this advantage be dependant on the colouring matter of the loam, oxide of iron, such ingredient may readily be added. Again we say, here is a field for experiment!

CRATÆ'GUS TANACETIFO'LIA.

TANSY-LEAVED AZAROLE.

Class. ICOSANDRIA.	*Natural Order.* ROSACEÆ.	*Order.* DI-PENTAGYNIA.

Native of Greece.	Height. 15 feet.	Flowers in May, June.	Habit. Tree.	Introduced in 1789.

No. 1234.

The Greek word KRATOS, strength, is the source whence this hard wooded tree received its name.

It formerly belonged to the genus Mespilus, but on the revision of the Order Rosaceæ, this and some others were transferred to Cratægus. It can but be matter of regret to all who are acquainted with this Hawthorn and several similarly fine species, that they are rarely seen in the parks and extensive shrubberies of the nobility and gentry of this country. Cratægus tanacetifolia claims the attention of the scholar for its classical associations, being, as it is, a native of the loftiest mountains of Greece; and to those who can only admire it for its own sake, its highly fragrant flowers in spring, and bright yellow fruit in autumn, offer of themselves no mean attraction. Excepting that of Cratægus aronia and Mexicana, the fruit of this species is the largest of the genus; its melon-like, ribbed shape, and the bracteas which form little wings, and are very usually found on it, prominently distinguish it from all others. Although the fruit is not very pleasant to English palates, it is said to be extensively eaten by some of the inhabitants of the Levant.

Cratægus oxycantha has several interesting varieties, which should not be neglected, some of which have been published in the former part of this work.

The Tansy-leaved Hawthorn, if attended to in its early growth, may be trained up to form a lofty and handsome tree; but Hawthorns are, too frequently, left to take care of themselves, unless connected with some legend of wonder, like that which brought into note the celebrated Glastonbury Thorn. It is true enough that within the precints of the ancient abbey of Glastonbury, a variety of the common Hawthorn is now growing which usually blossoms in winter. It is said to be a descendant of the tree which the legend states to have sprung from the staff of Joseph of Arimathea. From the testimony of persons who have cultivated the Glastonbury variety of Hawthorn, it appears that it blossoms regularly in May, as do those in our hedges; but that it also frequently blossoms in autumn or winter, according as it is influenced by the temperature of the season. It is not unfrequently found bearing its winter blossoms with its summer fruit, a circumstance which may recommend its culture to the notice of the curious, although they may not desire to encourage the spread of superstition. Seedlings raised from the berries of this variety do not produce plants possessing any propensity to flower in winter, those who wish to have the Glastonbury Thorn must propagate it by grafting it on a stock of the common variety of our hedges. The fable to which we have alluded seems to have been a modern invention, for neither Gerard or Parkinson mention it, although they notice the occurrence of the plant at Glastonbury.

CHÆNOS'TOMA POLYAN'THUM.

MANY-FLOWERED CHÆNOSTOMA.

Purple variety.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARIACEÆ.

Native of S. Africa.	Height. 15 inches.	Flowers in July.	Duration. Perennial.	Cultivated in 1848.

No. 1235.

The comparatively wide tube of the corolla is here alluded to in the name derived from CHAMA, to gape; STOMA, a mouth.

This native of Southern Africa, near Algoa Bay, is one of a rather numerous genus, nearly all of which belong to the country intermediate between its own habitat and the Cape of Good Hope. It may be supposed that this district is, to botanists, an interesting one, when it is known that in the colony of the Cape alone, twelve thousand species of plants have been collected and described. It may be called the land of Heaths, for of these alone three hundred species have been collected.

Chænostoma polyanthum is a suffruticose plant of short duration, unless renewed by cuttings or seeds. As sometimes occurs with other plants, so it is with this; propagated from seed, increased interest has arisen in a very distinct variety, having flowers of deep blue. We have frequently insisted on the advantages of propagating perennials from seed, however easily they may be continued by division. In the one case, improvement may arise, in the other it is impossible.

EUON'YMUS LATIFO'LIUS.

BROAD-LEAVED SPINDLE TREE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CELASTRACEÆ.

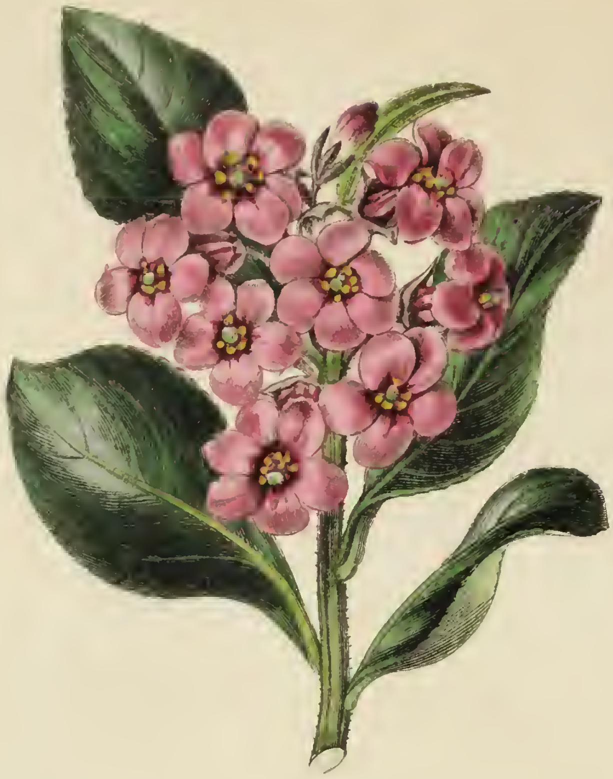
Native of Europe.	Height. 10 feet.	Flowers in May, June.	Habit. Shrub.	Introduced in 1763.

No. 1236.

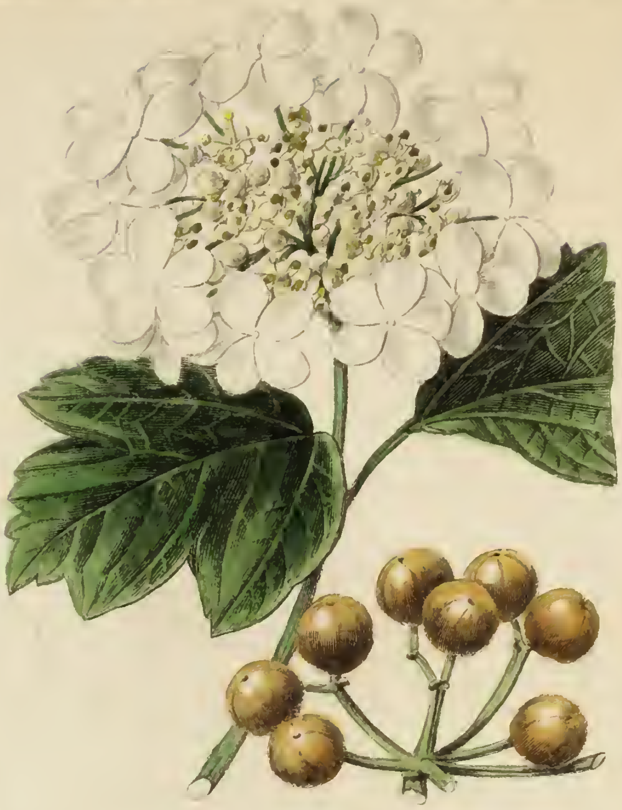
The Euonymus of Theophrastus is said to have been so called by antiphrasis, from EUONUMOS, having a good name; because the plant which the ancients so called was "infamous for its strong fœtid smell." Pliny, in describing it, says the smell and taste of it is pestiferous, and menaceth present death. It is uncertain to what plant these observations were applied by the Greeks.

The shrub now figured was, by Linneus, taken as a variety only of the Euonymus Europæus or Spindle Tree of Britain; no doubt, however, is now entertained of its specific distinction. It forms a far more handsome shrub or tree than Europæus or any other of the genus; indeed, as a small detached tree, unencumbered with surrounding shrubs, it becomes exceedingly attractive in summer, from its handsome foliage; and in autumn, from its brilliant scarlet fruit. Another circumstance, of no mean consideration, in its favour, is that its foliage is less liable to the attack of insects than that of the common species.

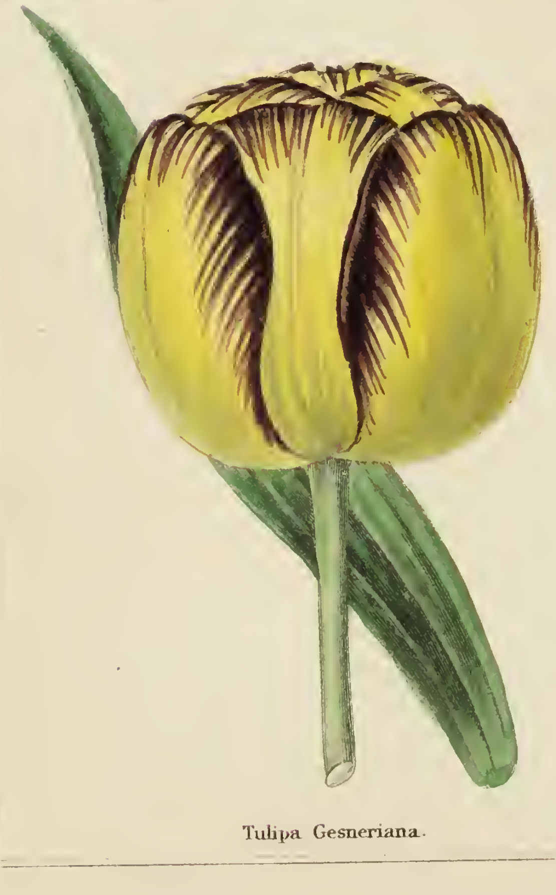
It may be readily propagated, either from seeds, cuttings, or layers.



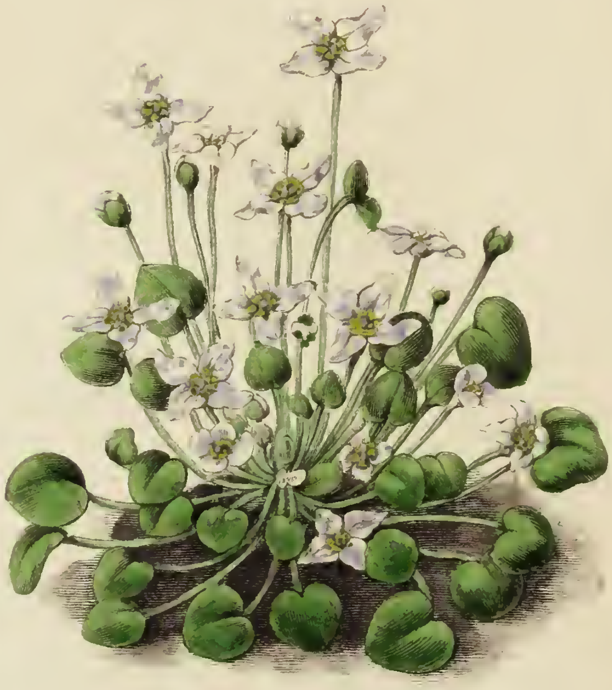
Escallonia macrantha. 2/3



Viburnum opulus. 1/2



Tulipa Gesneriana. 2/3



Cochlearia acaulis.

ESCALLO'NIA MACRAN'THA.

LARGE-FLOWERED ESCALLONIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ESCALLONIACEÆ.

Native of Chiloe.	Height. 3 feet.	Flowers in Summer.	Habit. Shrub.	Introduced in 1846.

No. 1237.

Escallon is the name of a Spanish traveller, in honour of whom this genus was named.

"This," says Sir William Hooker, "is assuredly the handsomest of all the species of Escallonia known to us." It is, doubtless, a fine species, and if it prove as hardy as some others of its genus, will be a great acquisition to the flower garden. Mr. Smith, of the Royal Gardens, is cautious in his assertions, as to perfect hardiness, and not having had experience ourselves regarding the plant, we will give our readers the benefit of his words. He says, "Coming from South Chili, we expect it will prove as hardy as the several species of the genus already known in this country. Although none of them will bear the very low temperature, to which this climate is occasionally subject; yet, if planted against a wall, in a warm sheltered place, with the precaution to protect them with a mat, and a layer of dry leaves or fern over the roots, during frost, they may be preserved through our ordinary winters."

Escallonia rubra—a miniature likeness of the handsome species under notice, we have found to succeed in a dry, sheltered, border.

VIBUR'NUM OP'ULUS.

YELLOW-FRUITED GUELDER-ROSE.

Class.
PENTANDRIA.

Order.
TRIGYNIA.

Natural Order.
CAPRIFOLIACEÆ.

Garden Variety.	Height. 10 feet.	Flowers in May, June.	Habit. Shrub.	Cultivated in 1840.

No. 1238.

Viburnum is derived from the Latin verb vieo, to bind; in allusion to the pliability of the twiggy branches of the plant which first received the name. Some botanists believe that the Viburnum lantanum is the plant thus designated by the ancients; others that it was some species of Willow. Martyn, in his notes on Virgil, says, "The ancient critics seem to have called any shrub that was fit for this purpose (binding faggots) Viburnum, but the more modern authors have restrained that name to express only our wayfaring-tree." The wayfaring-tree we may mention, is the Viburnum lantanum, or wild Guelder-rose, a native of England, growing in calcareous soils.

The Guelder-rose is deduced from the name Guelderland, formerly a province in the Netherlands, but now connected with France. The Germans call the plant Schneeball; and the French, Boule de Neige; terms which are synonymous with our Snowball, a significant name, and one that is used in some parts of England for this flower.

The variety of the Viburnum opulus, now published, is by no means common, it is the yellow-fruited; hence an interest is produced by its fruit as well as its flowers. It will be observed that its flowers do not assume that spherical form produced by the common Guelder-rose, or Snow-ball Tree, in consequence of its central flowers being fertile; whereas, in the trees usually met with in shrubberies the whole of the flowers are sterile, the principal parts of fructification therein being obliterated.

The peculiarity assumed by the flowers of this plant, and Hydrangea, in which the same occurs, is totally different from that metamorphosis, which so frequently is found in double flowers. In the latter, there is a partial or total change of the stamens into petals; which, on examination, will often be found in an imperfect state of transformation—half stamen and half petal, and sometimes perfect stamen with petal attached; or perfect petal with a stamen on its edge—a mark of its origin. This change cannot be better exhibited than in semi-double Roses. One now before us, the brilliant-coloured "Gloire de Rosomenes," displays it admirably. Its stamens and petals exist in all degrees of transformation, and some of its anthers are perfect, bearing pollen, and with petals growing from their sides; in other instances, one cell is obliterated by expansion of its tissue into a petal, whilst the opposite cell continues perfect and bearing pollen. Instances of the tranformation of one organ into another more incomprehensible by far than this, are frequent in vegetation. In the flower published, both stamen and pistil of the blossoms in the outer circle, are obliterated, whilst the corrolla is correspondingly enlarged.

TU'LIPA GESNERIA'NA.

Var. Catafalque.

GESNER'S TULIP.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
LILIACEÆ.

Garden Variety.	Height. 2 feet.	Flowers in April, May	Habit. Bulb.	Cultivated in 1845.

No. 1239.

The word Tulipa was reduced from the Persian Thoulyban or Tulipan, signifying a turban, the name adopted for the flower in Persia, of which country this species is a native. All the beautiful varieties, however, which have been so much the admiration of ages, are garden varieties, originated from seed, by Europeans. The propagation and culture of these, and indeed of all other flowers, as well as florist's flowers, is a sign of civilization not found in the eastern part of the globe. Gesner is commemorated in the specific name, he having introduced the tulip to the notice of his countrymen. He was a native of Switzerland, and the most eminent naturalist that had existed from the days of Aristotle. See No. 245.

The flower here represented is known to "the Fancy" as Catafalque, and was obligingly supplied us by Mr. Cole, from the garden of J. Willmore, Esq. It is a first-rate flower, but its pedigree we are unable to supply, or the date of its origin. From Mr. Cole we have also a communication combined in the following remarks.

The cultivation of the Tulip, fifty years ago, must have been in advance of the culture of plants in general; or, it has of late years been subjected to neglect, for, since that period, unlike almost every other plant, no variation in its treatment has taken place. When some of the circumstances, connected with the culture of this plant are duly considered, the necessity of entering on a more enlightened system must be evident. For instance, the propagator from seed, having obtained good "breeders," by which term is understood, self-coloured flowers, cannot rely on "breaking" such flowers for very many—perhaps twenty or more years. By breaking is meant developing their colours in stripes and pencillings. He waits in patient expectation for that which nature, in her regular course, unassisted by art, may never accomplish; and art has hitherto neglected, to take any part in the business.

As stated under No. 1197, the character prized by the florist is but the development of qualities, attendant on a peculiar, but enfeebled state of the plant; and in the case of the Tulip, this condition has been unsought for by culture, but waited for as the result of old age.

Propagation of the Tulip from seed will be treated of very shortly, in the mean time one step made by Mr. Cole, towards an improved culture should be mentioned. Observing the injury produced by wet seasons on Tulips, he applies his hoops and mats to the beds immediately after planting, protecting them from rain, but leaving the ends open for free ventilation. When the leaves make their appearance, the mats should be removed as much as possible in dry weather.

COCHLEA'RIA ACAU'LIS.

STEMLESS SCURVY-GRASS.

Class.
TETRADYNAMIA.

Order.
SILICULOSA.

Natural Order.
BRASSICACEÆ.

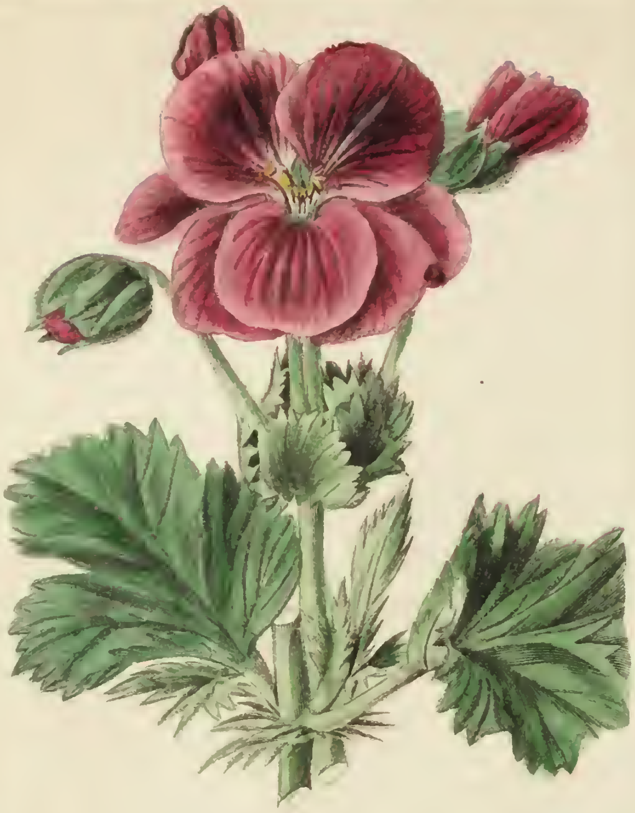
Native of Portugal.	Height. 2 inches	Flowers in Spring.	Duration. Annual.	Introduced in 1824.

No. 1240.

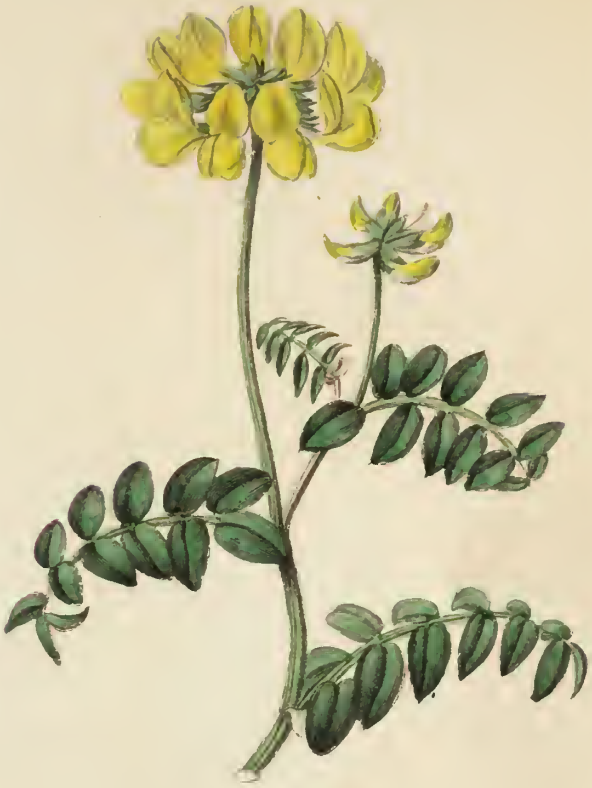
Cochlearia has not the far-fetched derivation of many of the names of plants that come under our notice, being deduced from the Latin cochlear, a spoon, the leaves of nearly all being hollow.

The plants of this genus are in general small and not showy; indeed, the order to which they belong scarcely admits of gaiety. The whole of the Order Brassicaceæ, seems to be esteemed antiscorbutic, and one of the Cochlearias especially so—the officinalis, a native of England, whence the genus has the name Scurvy-grass. That species is supposed to be synonymous with Cochlearia Grœnlandica, published at No. 64 of this work. Respecting the Scurvy-grass, all old authors esteem it a valuable medicine, and as well as being valuable for scorbutic affections, taken inwardly, Gerard says, "The herb stamped and laid upon spots and blemishes of the face, will take them away within six hours, but the place must be washed after with water, wherein bran hath been sodden."

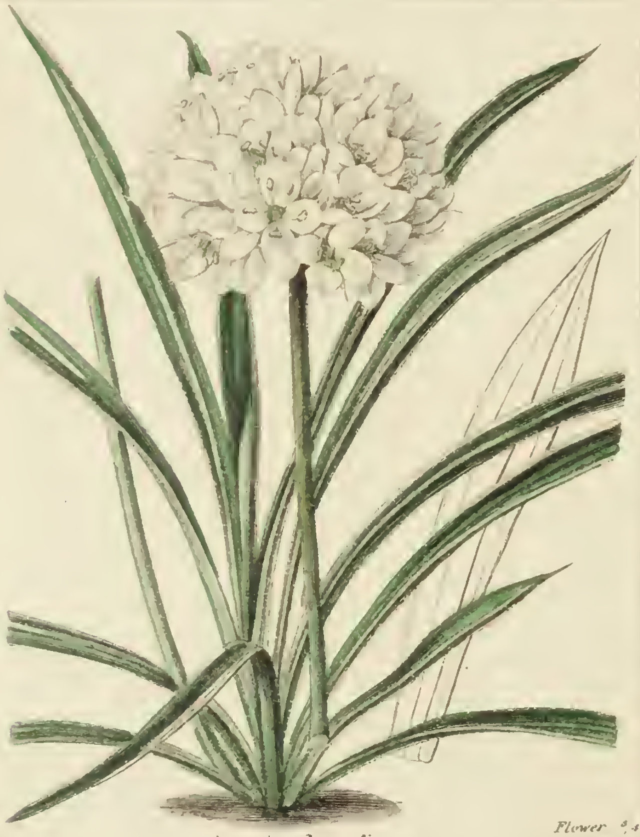
Cochlearia acaulis is a neat alpine plant, and suitable for pot culture, or planting on the shady side of rockwork.



Pelargonium

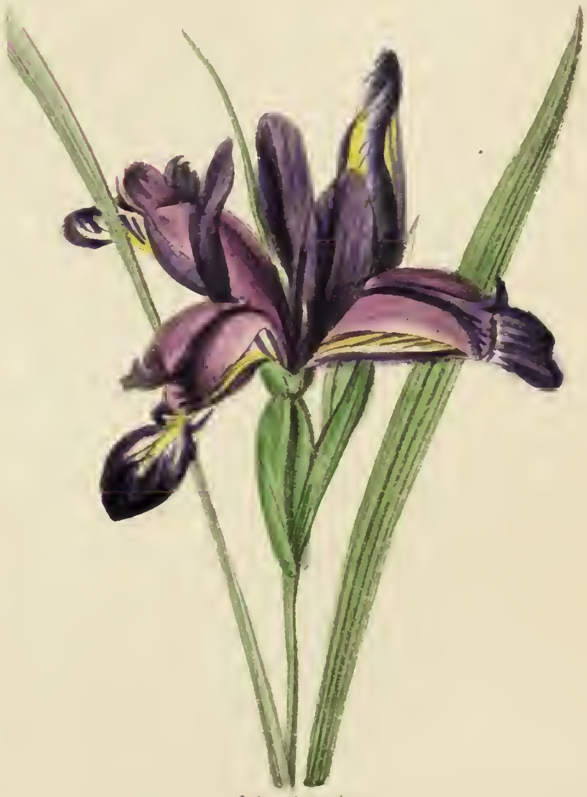


Coronilla Valentini.



Armeria plantagine.

Flower ¾
Foliage ½



Iris graminea.

PELARGO'NIUM INOPINA'TUM.

WILLMORE'S SURPRISE.

Class.	*Order.*
MONADELPHIA.	HEPTANDRIA.

Natural Order.
GRAMINACEÆ.

Garden origin.	Height. 18 inches.	Flowers in June, Sep.	Duration. Perennial.	Raised in 1850.

No. 1241.

The name, Pelargonium, has been explained under No. 1156. Our younger readers should be reminded that formerly Pelargoniums, Geraniums, and Erodiums, constituted one genus. This was divided on account of the different number of stamens found in the species thus combined; an explanation of which is given at length under the number above referred to. It will be readily believed, that a great desire also, existed amongst botanists, to divide so cumbrous a genus as Geranium, which contained a heterogenious collection of nearly five hundred species. The specific name, inopinatum, is adopted as indicative of the surprise excited by its discovery.

The plant now figured presents some anomalies found neither in one or other of the above genera. Independently of its botanical interest, it possesses so showy a character, that the florist will undoubtedly be anxious to obtain it for bedding out in the summer. Its brilliancy of colour, which is an uniform rich crimson, as well as its compact habit, well adapt it to such use.

It was found, as stated in the Gardener's Chronicle, by Mrs. Willmore, of the American Nursery, near Birmingham, growing amongst a bed of Hollyhocks, where it had stood the winter, and was supposed to be an accidental mule, between those plants and some unknown Pelargonium—an idea that may be supposed to have arisen partly from the peculiar form of the flowers, and partly from an apparent resemblance between the calyx of the plant and the involucre of the Hollyhock.

It is, in reality, a semi-double Pelargonium, with the irregularity characteristic of that genus exchanged for something very like the regularity of a wild Geranium. Each flower consists of from seven to nine rather convex petals, uneven at the edge, and spreading nearly equally round the common centre. There are from fifteen to seventeen stamens, many with perfect anthers. The stigmas, apparently also perfect, vary in number from nine to twelve. The calyx, which is very remarkable, consists of about eight hairy, broad-ribbed sepals, of which three stand on the outside of the others, are lobed at the end, and are very like the bracts of some malvaceous plant. The lobing observable in the sepals is much more remarkable in the stipules and bracts.

We learn, from inquiry, that this singular plant is quite as woody as the Pelargoniums, and when taken up, had a tap root, very different from any of these plants. Should it produce seed, a curious offspring may be the result; in the first season of its existence, however, a fair chance to do so has not been permitted it, from the desire to make cuttings of all available parts of so novel a production.

CORONIL'LA VALENTI'NA.

VALENTIA CORONILLA.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ,

Native of S. Europe.	Height. 2 feet.	Flowers in March Nov.	Habit. Shrub.	Introduced in 1596.

No. 1242.

Coronilla, a little crown, explained at No. 226.

It is estimated, by Humboldt, that Leguminous, or Pea-flowering plants, constitute one-eleventh of the flora of the whole earth. Although in this, as in almost every other class of natural productions, those of a tropical climate excel in splendour, those indigenous to more northern latitudes, nevertheless our own Leguminous Furze and Broom, however negligently they may be passed in review, possess a splendour of no inferior order when judged of in the mass, and compared with plants of the same class, whose individual blossoms may be incomparably more variable in colour, and magnificent in dimensions.

Like Coronilla glauca, Valentina, now figured, is one amongst the prettiest of window plants. It is smaller in all its parts than glauca; and with a little attention bestowed on pruning it, immediately after its flowers have faded, it may be kept to a compact little bush of any desired shape. At this period of its growth, the application of a little liquid manure to it, with additional warmth, would add much to its luxuriance and beauty.

ARME'RIA PLANTAGI'NEA.

PLANTAIN-LEAVED THRIFT.

Class.
PENTANDRIA

Order.
PENTAGYNIA.

Natural Order.
PLUMBAGINACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	1 foot.	May, June.	Perennial.	in 1818.

No. 1243.

We find no direct explanation of the name Armeria; Gerarde, however, says "The Sweet John, and also the Sweet William, are both comprehended under one title, that is to say Armeria. In French Armoires; hereupon Ruellius nameth them Armerij Flores."

For the opportunity of figuring this plant we are indebted to the kind assistance of F, Westcott, Esq. who says "It is a hardy herbaceous plant, bearing a head of pinkish white flowers. It is a native of the middle and south of Europe, and is found growing in Germany, Piedmont, Spain, and Lusitania. Its nearest alliance is to the Armeria cephalotes (No. 1144.) and Armeria pseudo-armeria; but from both it differs in its peculiar foliage, which is much softer than the leaves of that species; also the margins of the leaves are entire."

Its specific name could scarcely have been more appropriate, for its leaves very much resemble that of Plantago lanceolata.

As this plant is found chiefly in the milder parts of Europe, it may, possibly, not withstand the more severe of our winters.

I'RIS GRAMI'NEA.

GRASS-LEAVED IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Native of Austria.	Height. 9 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1597.

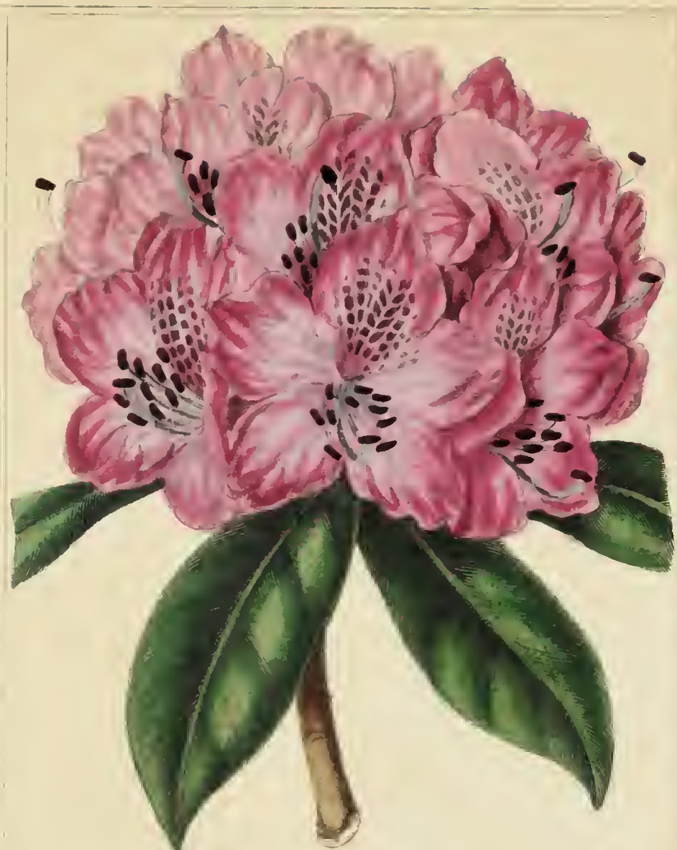
No. 1244.

The meaning of the word has been explained.

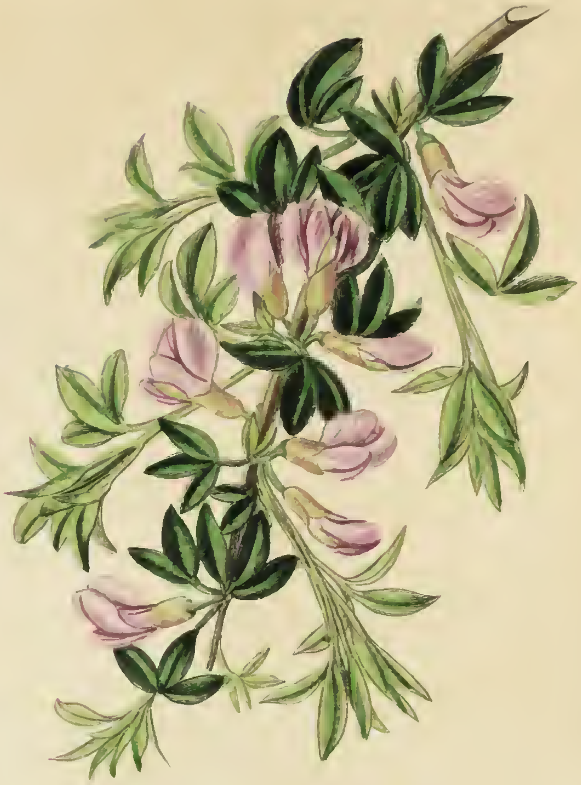
This is a showy, free-flowering Iris, of upright growth, requiring no peculiarity of management; indeed nearly all the hardy Irises hold care and cultivation in contempt. Having once their roots fixed in earth,—whether black or red, light or heavy, is of little moment, they live, and grow, and flower, and creep, more on, than in, the soil; and somewhat Diogenes-like, ask only that hoes and rakes be kept from between the sun and them.

Several amateur as well as professional cultivators, have brought together very many of the species of Iris; and the interest excited by such collections may be imagined, when it is recollected that nearly a hundred species have been introduced to this country. Also, that if it be desired to extend a collection, nearly an additional hundred handsome varieties of the bulbous species Xiphioides, raised by the Dutch, may be obtained from dealers in bulbs.

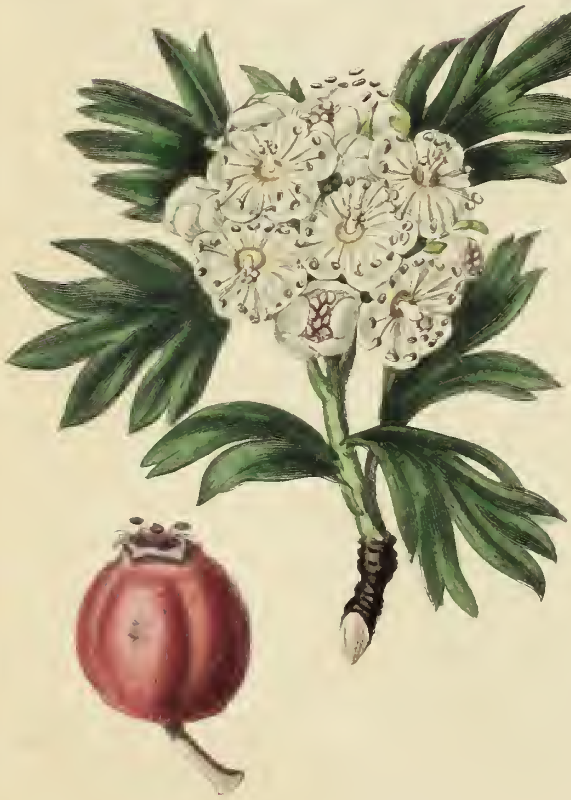
As several species have narrow leaves, errors often exist in their names. Our figure of the true species will assist in their correction.



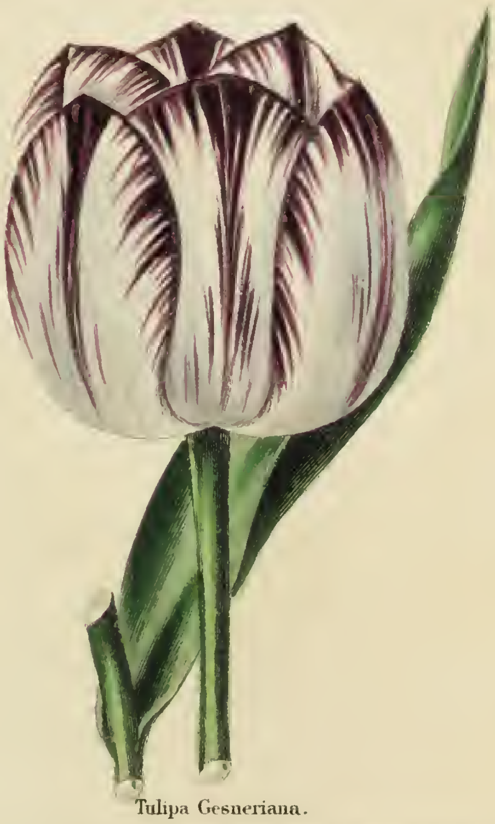
Rhododendron Jackmanii. 1/2



Cistus purpureus. 2/3



Cratægus odoratissima. 2/3



Tulipa Gesneriana. 1/2

RHODODEN'DRON JACKMAN'II.

JACKMAN'S RHODODENDRON.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICACEÆ.

Garden Origin.	Height. 4 feet.	Flowers in May.	Habit. Shrub.	Raised in 1845.

No. 1245.

Hybrid varieties innumerable have been obtained by the admixture, one with the other, of the older species of Rhododendrons; and a further admixture of these with the old genus Azalea further extend their numbers. In addition to these sources a new one of importance has lately been opened to us, and the streams flowing thence from Indian mountains are not less unexpected than gratifying. Dr. Hooker, son of Sir W. J. Hooker, has, for about two years, been engaged in exploring the Himalaya Mountains, especially that portion called Sikkim, where he has discovered species of Rhododendron hitherto unheard of, and unthought of. The species he has discovered, which amount to upwards of forty, comprise plants of varied character, some being dwarf alpine species, whilst others grow twenty or thirty feet high. One species, called Dalhousiæ, may be mentioned for the splendour of its flowers. They are white, tinged with pink, each blossom forming a bell four inches. and a half long, and as much across the mouth, and possessing a lemon-like perfume.

Cultivators have not been idle at home, for the best use may be said to have been made of the species already possessed. The Rhododendron arboreum, a tender species—the finest possessed by this country previously to those above mentioned, has been most extensively hybridised with more hardy species. From the offspring so obtained, other crossed varieties have been propagated, and this through a series of generations; so that the parentage of many of the finest Rhododendrons now in our gardens can neither be told by their originators, nor recognized by the botanist.

The fine specimen which we have here figured was thus raised by Mr. Jackman, nurseryman, of Woking, after whom it is named. Mr. Jackman says, "Some time since, I hybridised some hybrid varieties of Rhododendron Catawbiense, with fine scarlet varieties, and the plant in question was raised from that cross." The scarlet variety alluded to had probably arisen from various crossings, deriving its colour from arboreum. Mr. Jackman obligingly sent us one of these plants in December, 1849; which was immediately planted out. Its habit is good, and it flowered in perfection. This year again every shoot has its flower-bud, corroborative of the originator's opinion that it is the best he ever possessed for constancy of flowering, and it certainly is a handsome variety.

We have been favoured by Mr. Moore, nurseryman, of Perry Bar, with the inspection of a drawing of another hybrid Rhododendron, of very similar character to Mr. Jackman's, but possessing somewhat less colour. Every admirer of such shrubs should possess both of them.

CYT'ISUS PURPU'REUS.

PURPLE CYTISUS.

Class.	*Order.*
MONADELPHIA.	DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers	Habit.	Introduced
Austria.	3 feet.	May to Aug.	Shrub.	in 1792.

No. 1246.

From the name Cynthus, see No. 1078.

The habit of a plant has much influence in making it a favourite or otherwise in our gardens; indeed, a plant of handsome growth is an object of beauty independently of flowers. This may not be pleasurably felt by "the million," amongst whom the cultivation of taste has not, in our own country, arrived at the desired standard. Beauty of this class is, however, recognized where the arts have educated the mind, and generated those susceptibilities, on which refined pleasures are so greatly dependent.

The Cytisus purpureus has much beauty to recommend it to the florist, but its branches are weak, and, growing on their own roots, not readily trained or disposed of in any way that can render them convenient ornaments, either in the borders or shrubbery. Here, then, art steps in, and elevates them on a standard, from two feet to six feet high, as taste and circumstances require; and upon the same principle as standard Roses, now so greatly admired, a desirable ornament is obtained.

Seedling stocks of Laburnum are the most suitable for receiving grafts of any species of Cytisus.

CRATÆ'GUS ODORATIS'SIMA.

SWEET-SCENTED HAWTHORN.

Class.	*Natural Order.*	*Order.*
ICOSANDRIA.	POMACEÆ.	DI-PENTAGYNIA.

Native of Crimea.	Height. 12 feet.	Flowers in May, June.	Habit. Tree.	Introduced in 1836.

No. 1247.

Cratægus alludes to its hard wood; No. 1059.

In the course of this work we have published nearly all the most desirable Hawthorns for park or shrubbery cultivation; those which are remarkable either for the size of their fruit, beauty of flowers, fragrance, or general character as objects in the landscape, in which many of them produce an effect peculiarly their own. Were we limited to a single species, our own sweet Hawthorn—the fountain of fragrance in spring, and the type of fruitfulness in autumn, would be our choice. It is the very Proteus of plants, having more than thirty distinct varieties, some drooping, others upright; flowers double, single, pink, and white. Its fruits of many hues, as black, white, golden, scarlet, orange, green, and crimson; and its leaves of innumerable shapes.

Cratægus odoratissima is remarkable for its production of abundance of large red fruit, of which our coloured figure represents the natural size, the flower being two-thirds the size of nature; they are produced in great profusion and are highly fragrant. Propagate by grafting on the common Hawthorn.

TU'LIPA GESNERIA'NA.

Var. Cramoise pourpre.

GESNER'S TULIP.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
LILIACEÆ.

Garden Origin.	Height. 2 feet.	Flowers in April, May	Habit. Bulb.	Raised in 1850.

No. 1248.

The propagation of the Tulip from seed involves no great amount of horticultural knowledge; but to develope the value of such seedlings—to "break" them, as it is technically termed, that is, to facilitate their development of brilliant pencillings of clear colour, is an art of which little is known. As is premised at No. 1197, these beautiful pencillings of the flower, are dependent on the plant being placed in a state of health differing from that which it attains under common circumstances in its native localities. This abnormal state is said to be effected by cultivation, or rather by starvation, in poor soil; but at present such cultivation is a mode of proceeding guided by no fixed principles; and is at present, with Tulip growers, more nor less than hap-hazard management, which sometimes, after a series of years, proves itself efficient by chance.

The first object towards obtaining good seedlings is the securing of good seeds. Those produced by unbroken flowers, that is, flowers of one colour, usually called breeders, of good shape and strength of petal, are preferred. Propagators are unanimous in their opinion that seeds obtained from striped and marked flowers, even the finest of them, produce an offspring inferior to those which are raised from flowers unbroken, and more truly in their natural state. This is good evidence, that the flower when perfected in the estimation of the florist, is the production of an enfeebled plant.

Seed should be sown early in November, in boxes of such dimensions as may be conveniently kept in a frame. The boxes should have very small perforations in their bottoms, to admit of drainage, so small as not to admit of the bulbs passing through them. The necessity for this precaution is the tendency of seedling Tulips, for the first two or three years of their growth, to descend to a considerable depth, whereby in many cases they are lost. A further advantage of sowing in boxes is their easy removal to a shed, during their season of rest, as there is no necessity for removing the little seedling bulbs from the boxes for the first two or three years. No compost or soil is better suited for this purpose than fresh, friable, sifted loam. Sow the seed nearly an inch deep, in drills; protect it from frost in a cold frame, and supply plenty of moisture during the growing season of the seedlings, but, as they ripen, gradually withold water till their season of vegetation again commences.

In the words of Parkinson, —closing his Paradisus Terristris, may I now say — "And thus haue I finished this worke, and furnished it with whatsoeuer Art and Nature concurring, could effect to bring delight to those that liue in our climate, and take pleasure in such things; which how well or ill done, I must abide euery one's judgment."

FINIS.